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PENNSYLVANIA Recreation Survey

PRINCIPAL FINDINGS — RECOMMENDATIONS

Prepared for..

the COMMONWEALTH of PENNSYLVANIA
OFFICE of STATE PLANNING and DEVELOPMENT

By..

IDE ASSOCIATES INC.
PHILADELPHIA,
PENNSYLVANIA

Pennsylvania Recreation Survey
Principal Findings and Recommendations

Prepared for

The Commonwealth of Pennsylvania
Office of State Planning and Development
Harrisburg, Pennsylvania 17120

by

Ide Associates, Inc.
7708 City Line Avenue
Philadelphia, Pennsylvania 19151

April, 1975

The preparation of this survey was financed in part through a planning grant from the Bureau of Outdoor Recreation, Department of the Interior, under the provisions of the Land and Water Conservation Fund Act of 1965 (Public Law 88-578).

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COMMONWEALTH OF PENNSYLVANIA
GOVERNOR'S OFFICE
OFFICE OF STATE PLANNING AND DEVELOPMENT
BOX 1323
HARRISBURG 17120

April 30, 1975

The Honorable Milton J. Shapp, Governor
Commonwealth of Pennsylvania
225 Main Capitol Building
Harrisburg, Pennsylvania 17120

Dear Governor Shapp:

I am pleased to submit this report, *Pennsylvania Recreation Survey-Principal Findings and Recommendations.* The summary and report were completed as a part of the update of Pennsylvania's Recreation Plan.

The report presents information on the first comprehensive survey of recreation activity participation and preference conducted in Pennsylvania. It is based on a scientifically designed series of telephone interviews of members of approximately 3,000 households conducted during June-August, 1974, which obtained data concerning 19 recreation activities.

The survey and report were completed by Ide Associates, Inc., Philadelphia, working under the direction of the staff of the Office of State Planning and Development with technical guidance from the Interagency Recreation Planning Task Force.

The survey techniques used were innovative and the information presented in this report provides much new and meaningful data and insights useful in formulating a Commonwealth recreation policy.

Sincerely,

A.E. Simon

A.E. Simon, Director
State Planning and Development

PENNSYLVANIA RECREATION SURVEY
PRINCIPAL FINDINGS AND RECOMMENDATIONS

This report is based on a scientifically designed telephone survey of approximately 3,000 Pennsylvania households conducted in the months of June, July, and August, 1974, using WATS lines from a single location. The recreation participation in 19 outdoor-oriented activities was obtained for a randomly selected individual 5 years of age or older in each household. Interviewers worked from a computer-prepared listing of telephone numbers, each of which had an associated random number table which designated a particular person in an age-ordered listing of household members obtained at the start of the interview. If the designated individual was 10 years of age or older, that individual was interviewed on his/her recreation participation. If the individual was 5 to 9 years of age, an adult member of the household, generally the parent, was interviewed about that person's participation. In addition, a household head was interviewed to obtain attitudes on recreation and the socio-economic characteristics of the household.

For an active child or teenager, the interview approached an hour in length; for an elderly or infirm person with limited activity the interview took approximately 7 minutes. The findings presented in this summary are based upon a detailed examination of some 580 computer-prepared tables containing approximately 130,000 cells of data.

PARTICIPATION IN 19 RECREATION ACTIVITIES

Of the 19 recreation activities surveyed, 12 activities account for three or more days of participation per year per person 5 years of age or older. If a person participates in an activity at all during a day it is counted as an activity day for that activity. The activity days per year per capita, the percent of population participating at least once during the year, and the activity days per person participating for the 19 surveyed activities ranked by activity days per capita are:

	Activity days per capita	Percent of population participating	Activity days per participant
bicycling	30.49	47.9	63.68
swimming	20.72	66.7	31.08
sightseeing or driving for pleasure	16.91	72.5	23.34
basketball	8.74	22.2	39.50
baseball or softball	7.84	32.4	24.24
hiking or nature walks	7.44	40.9	18.23
picnicking	6.13	70.6	8.69
tennis	5.10	24.0	21.28
fishing	4.68	31.9	14.65
golf or miniature golf	3.85	29.0	13.31
football	3.41	16.5	20.68
off-road motorcycling or riding snowmobiles	3.01	12.0	25.16
camping	2.86	26.3	10.86
boating, canoeing or waterskiing	2.58	30.7	8.42
hunting or sport shooting	2.23	14.0	15.90
horseback riding	1.96	11.1	17.61
ice scating	1.86	21.2	8.79
street hockey	1.12	4.6	24.20
snow skiing	0.36	4.9	7.30

The 20.72 activity days per capita for swimming translates to 229 million activity days for the estimated Pennsylvania population 5 and over of 11,054,000. In general, activity is presented in days per capita rather than in total days to facilitate comparison of the recreation participation of different segments of the population. The prevailing practice in state recreation plans of presenting millions of activity days rather than days per capita makes such comparisons very difficult.

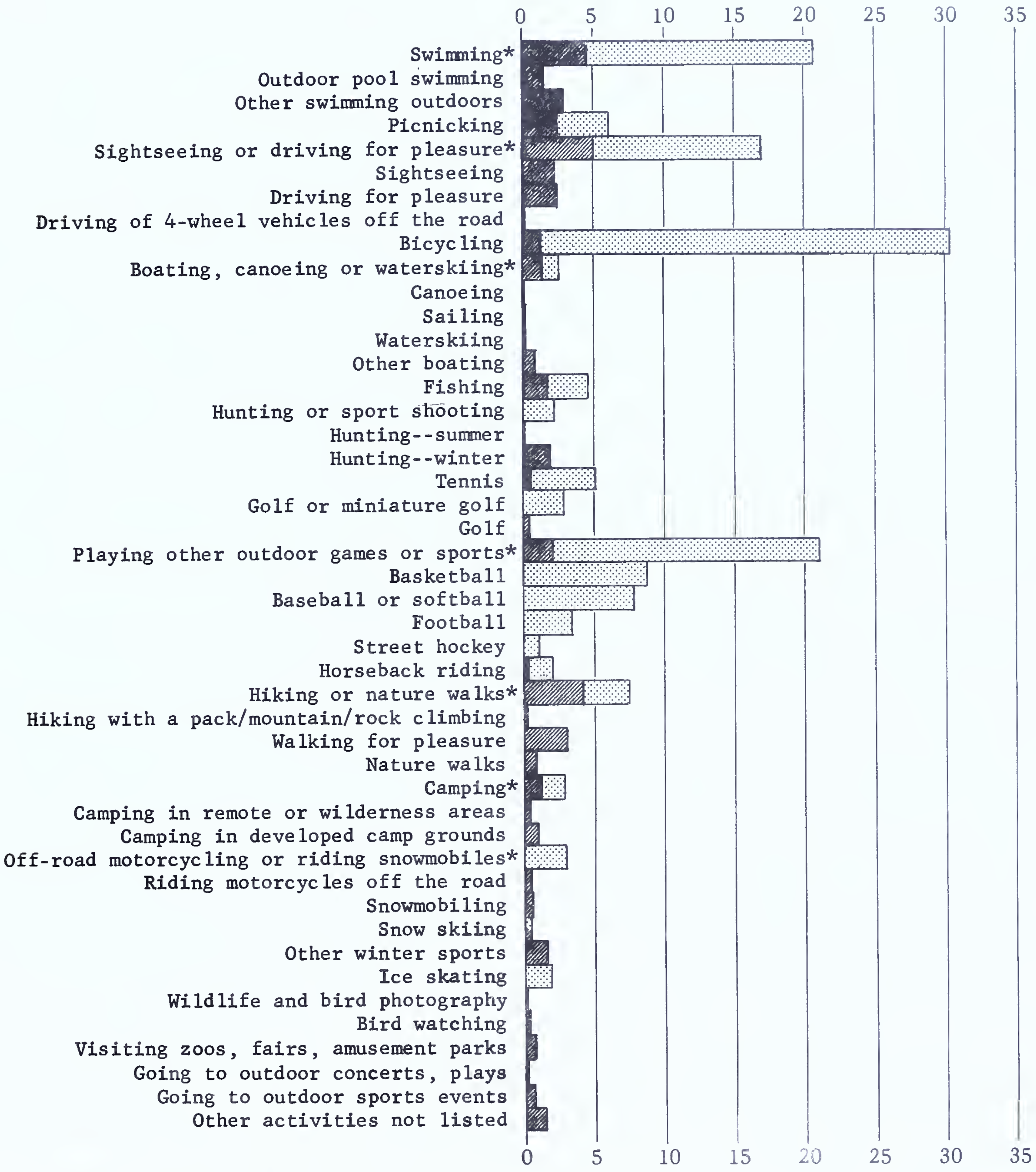
Most state recreation plans, including previous Pennsylvania plans, have been based in part on subsets of data obtained from surveys conducted for the U.S. Bureau of Outdoor Recreation. The activity days per capita obtained in the current study exceed dramatically those obtained in the 1972 U.S. Bureau of Outdoor Recreation study. The differences are partly accounted for by the fact that the current study covers a full year, whereas the 1972 study covered principally June, July, and August; the current study covers persons 5 years of age and over, whereas the 1972 study was restricted to persons 12 years of age and over; and the current study does not exclude indoor days, which account for 5.1% of activity days in the 19 surveyed activities. The principal reason for the differences, however, is that the 1972 study focused on characterizing vacations, trips, and outings, whereas the current study attempts to characterize all participation in each activity over the course of the year as well as the most recent participation in the activity. The greatest differences in participation rates between the two studies are for bicycling, 30.49 vs. 1.34 days per capita, swimming, 20.72 vs. 4.66 days per capita, and tennis, golf, and other outdoor games and sports, 30.06 vs. 3.03 days per capita.

The dramatic differences suggest a need for review of recreation priorities nationally. For example, the proportion of activity days in bicycling is approximately 6 times that of 1972, and the proportion in all outdoor games and sports is 2.6 times that of 1972. In three other major groups of activities the proportion is half that of 1972, namely:

> boating, canoeing or waterskiing, fishing, hunting, horseback riding, hiking and and walking, camping, wildlife and bird photography, and bird watching, off-road motorcycling and winter sports.

It may be noted that pool swimming constituted 34.5% of swimming activity in the 1972 study whereas it is estimated at 74.4%, based on the most recent participation, in the current study, indicating that pool swimming is relatively twice as important as in the earlier study.

RECREATION ACTIVITY DAYS PER CAPITA, U.S., 1972, BY AUDITS & SURVEYS; AND PENNSYLVANIA, 1974, BY IDE ASSOCIATES



* A composite activity with sub-activity detail shown

▨ Summer or winter, 1972, 12 years and over, U.S., by Audits & Surveys for U.S. Bureau of Outdoor Recreation

░ 365 days prior to interview, 1974, 5 years and over, Pa., by Ide Associates for Pennsylvania Office of State Planning and Development

Chart

TABLE 1

Recreation Participation, 1972 (U.S., Audits & Surveys)[1] and 1974 (Pennsylvania, IDE Associates) [2]

Activity	Percent of population participating		Activity days per participant		Activity days per capita [3]	
	A & S	Ide	A & S	Ide	A & S	Ide
All listed activities					*34.08*	*131.29*
Swimming		66.7		31.08	4.66	20.72
Outdoor pool swimming	17.8		9.0		1.61	
Other swimming outdoors	33.7		9.0		3.05	
Picnicking	46.5	70.6	5.4	8.69	2.53	6.13
Sightseeing or driving for pleasure		72.5		23.34	4.97	16.91
Sightseeing	37.4		6.1		2.27	
Driving for pleasure	34.1		7.4		2.53	
Driving of 4-wheel vehicles off the road	1.8		9.2		0.17	
Bicycling	10.4	47.9[4]	12.9	63.68[4]	1.34	30.49[4]
Boating, canoeing or waterskiing		30.7		8.42	1.44	2.58
Canoeing	2.9		4.1		0.11	
Sailing	2.6		7.9		0.20	
Waterskiing	5.3		6.4		0.34	
Other boating	14.6		5.4		0.79	
Fishing	23.8	31.9	7.3	14.65	1.74	4.68
Hunting or sport shooting		14.0		15.90		2.23
Hunting - - summer	2.6		4.3		0.11	
Hunting - - winter	13.9		13.5		1.87	
Tennis	5.4	24.0	9.5	21.28	0.51	5.10
Golf or miniature golf		29.0		13.31		3.85
Golf	4.8		8.2		0.40	
Playing other outdoor games or sports	21.9		9.7		2.12	21.11
Basketball		22.2		39.50		8.74
Baseball or softball		32.4		24.24		7.84
Football		16.5		20.68		3.41
Street hockey		4.6		24.20		1.12
Horseback riding	5.4	11.1	5.9	17.61	0.32	1.96
Hiking or nature walks		40.9		18.23	4.31	7.44
Hiking with a pack/mountain/rock climbing	5.4		5.2		0.28	
Walking for pleasure	33.9		9.2		3.10	
Nature walks	16.7		5.6		0.93	
Camping		26.3		10.86	1.32	2.86
Camping in remote or wilderness areas	4.8		7.5		0.36	
Camping in developed camp grounds	10.9		8.8		0.96	
Off-road motorcycling or riding snowmobiles		12.0		25.16	1.01	3.01
Riding motorcycles off the road	4.5		7.8		0.36	
Snowmobiling					0.65	
Snow skiing	4.5	4.9	8.1	7.30	0.36	0.36
Other winter sports	15.5				1.62	
Ice skating		21.2		8.79		1.86
Wildlife and bird photography	2.0		6.2		0.12	
Bird watching	3.9		6.6		0.26	
Visiting zoos, fairs, amusement parks	24.2		3.2		0.77	
Visiting a museum or zoo		5.3				
Going to outdoor concert, plays	6.5		2.5		0.17	
Attending a cultural event or concert[5]		6.7				
Going to outdoor sports events	11.8		5.1		0.61	
Attending a live, amatuer or professional sporting event[5]		12.2				
Other activities not listed	24.2		6.4		1.52	

** Footnotes on page 5.*

First-time participation

One indicator of the rate at which participation in an activity is growing is given by the fraction of the population who participated in the activity for the first time during the previous year. Of the 19 surveyed activities, there are 8 activities for which the number of individuals who participated in the activity for the first time in the previous 12 months was in excess of 1 percent of the total population 5 years and older. The activities and the associated percent of the population 5 years and older who participated for the first time are as follows:

boating, canoeing or waterskiing.	2.58%
tennis	2.44
off-road motorcycling or snowmobiling	2.08
camping	1.96
ice scating	1.67
snow skiing	1.06
horseback riding	1.05
golf or miniature golf	1.00

Thus, for example, approximately 1 in 50 persons 5 years and older participated in camping for the first time in the previous 12 months.

**Footnotes for page 4.*

[1] Persons 12 years old and over. Based on a home interview survey of approximately 4,000 persons drawn from the non-institutionalized population of the conterminous United States. Data covers participation during June, July, and August 1972, except figures for hunting, snow skiing, snowmobiling, and other winter sports which reflect participation during the period from September 1971 through May 1972. Survey conducted for the U.S. Bureau of Outdoor Recreation.
Source: Computed from data presented in the Statistical Abstract of The United States, 1973, p. 208 and Outdoor Recreation--A Legacy for America, A Summary of Outdoor Recreation in America, 1972-1978, p. 4, and Table 2-2, pp. 42-51, in Appendix "A", An Economic Analysis.

[2] Persons 5 years and over. Based on a telephone survey of approximately 3,000 individuals conducted during the months of June, July, and August, 1974, and covering the 365 days prior to the interview. Includes indoor participation. Survey conducted for the Office of State Planning and Development, Commonwealth of Pennsylvania.

[3] Total activity days divided by the total population. Activity days are the number of different days per year on which an activity occurs regardless of the time spent in the activity. Note that if several activities are engaged in on a single day, each contributes a full day to the activity day total even though one or more may account for only a few minutes actual time.

[4] Includes an unknown amount of non-recreational bicycling.

[5] Obtained only for the Saturday or Sunday immediately preceding the interview, so that summer or annual participation is not available.

The rate of growth of an activity is also related to the percent of participants in the activity who participated for the first time in the previous 12 months. The 8 activities which show the highest percentages of first-time participants are:

snow skiing	21.60%
street hockey	19.05
off-road motorcycling or snowmobiling	17.32
tennis	10.16
horseback riding	9.48
boating, canoeing or waterskiing.	8.42
ice skating	7.85
camping	7.43

Thus, for example, slightly more than a tenth of persons who played tennis in the past year, played for the first time during the year.

An indicator of potential growth is the ratio of the number of interested non-participants to participants. The 8 activities with the highest ratios are:

snow skiing	1.95
horseback riding	1.45
off-road motorcycling or snowmobiling	.77
camping	.53
tennis	.48
boating, canoeing or waterskiing.	.44
ice skating	.41
street hockey	.38

For example, there are nearly two nonskiers who state they are interested in participating in skiing for each person who skied one or more times in the past year. The fraction of interested persons who will actually become skiers is, of course, unknown.

Kind of place

For 17 of the 19 surveyed activities (bicycling and sightseeing or driving for pleasure are excluded) an estimated 48.4% of activity days occurred at public places, 41.3% at private places, 8.2% at commercial places, and 2.1% at nonprofit or quasi-public places. (See Table 2). Within the public sector, public schools or universities accounted for 20.6%, neighborhood facilities for 6.8%, municipal or county for 42.0%, state for 29.1%, and national for 1.5%.

Public schools, neighborhood parks or playgrounds, and municipal or county parks have above average importance to basketball, baseball or softball, tennis, fishing, football, ice skating, and street hockey. State and national parks and lands have above average importance for hiking or nature walks, picnicking, fishing, camping, boating, canoeing or waterskiing, and hunting or sport shooting. Private facilities are most important for swimming, football, off-road motorcycling or snowmobiling, hunting or sport shooting, horseback riding, and street hockey; commercial facilities, for golf or miniature golf, camping, boating, canoeing or waterskiing, hunting or sport shooting, horseback riding, and street hockey; nonprofit, for swimming, hiking or nature walks, and camping.

TABLE 2

Recreation Participation by Detailed Ownership of Place of Most Recent Participation, Total 17 Activities

(In percent)

	Participants		Activity days	
	Percent of total	Percent of subtotal	Percent of total	Percent of subtotal
All places	*100.0*		*100.0*	
Public	51.0	100.0	48.4	100.0
Public school or university	6.7	13.2	10.0	20.6
Neighborhood	2.3	4.5	3.3	6.8
Municipal or county	20.8	40.8	20.3	42.0
State	20.2	39.6	14.1	29.1
National	0.9	1.8	0.7	1.5
Private	34.1	100.0	41.3	100.0
Subject's home, lands, or vacation home/streets by home	11.7	34.4	17.5	42.3
Home or lands of private individual other than subject	13.5	39.5	11.6	28.2
Private club - - swim club, country club, yacht club, etc.	5.7	16.8	8.5	20.6
Private camp, day or overnight	1.2	3.5	1.0	2.5
Apartment complex, housing development mobile home park	0.4	1.3	0.8	1.9
Private school or university	0.7	2.1	1.0	2.4
Lands or holdings of a business corporation or public utility	0.8	2.5	0.9	2.2
Commercial	12.9	100.0	8.2	100.0
Health spa, commercial athletic club	0.1	0.7	0.1	1.6
Resort hotel, overnight motel	1.9	14.4	1.2	14.8
Commercial golf course, skiing area campground, stables, etc.	11.0	84.8	6.9	83.6
Nonprofit, Quasi-public	2.0	100.0	2.1	100.0
Camp, sponsored by nonprofit agency, day or overnight	0.6	31.4	0.5	23.3
YMCA, YWCA, YMHA, YWHA, Boy's club, Little League, etc.	0.6	32.7	1.1	54.3
Church, synagogue, other religious facility	0.6	31.7	0.4	20.0
Historical or horticultural society, zoo or botanical garden	0.1	4.2	0.1	2.4

TABLE 3

Recreation Participation by Class of Ownership for 17 Activities

		Participants							Activity days						
	All places	Public, total	School, local	State	National	Private	Commercial	Nonprofit	Public, total	School, local	State	National	Private	Commercial	Nonprofit
Total 17 activities	*100.0*	*51.0*	*29.8*	*20.2*	*0.9*	*34.1*	*12.9*	*2.0*	*48.4*	*33.6*	*14.1*	*0.7*	*41.3*	*8.2*	*2.1*
Swimming	100.0	44.0	29.3	14.2	0.5	44.7	8.5	2.8	37.6	27.4	9.6	0.5	53.6	6.2	2.7
Basketball	100.0	55.2	54.0	1.2	0.0	40.6	1.8	2.4	62.2	59.5	2.7	0.0	35.7	0.6	1.5
Baseball or softball	100.0	59.5	55.1	3.9	0.5	37.1	1.7	1.7	63.3	59.8	3.3	0.2	31.4	1.2	4.1
Hiking or nature walks	100.0	62.7	23.6	36.6	2.5	30.9	3.8	2.6	58.9	28.4	29.2	1.3	35.7	3.1	2.3
Picnicking	100.0	66.5	26.6	39.0	0.9	24.7	7.2	1.6	65.1	22.4	41.7	1.0	25.6	7.6	1.7
Tennis	100.0	75.1	73.0	1.9	0.2	20.7	3.3	0.8	71.4	69.6	1.8	0.0	23.9	3.2	1.5
Fishing	100.0	65.2	31.6	32.4	1.2	28.0	6.4	0.5	68.2	29.1	37.1	2.0	27.3	4.0	0.5
Golf or miniature golf	100.0	10.5	10.0	0.3	0.2	15.8	73.7	0.0	11.7	11.4	0.2	0.1	34.2	54.1	0.0
Football	100.0	46.8	45.0	1.4	0.3	52.1	0.0	1.1	48.2	46.6	1.4	0.3	51.2	0.0	0.6
Offroad motorcycling or riding snowmobiles	100.0	23.2	11.6	11.4	0.3	70.5	6.3	0.0	21.7	11.1	10.2	0.4	75.8	2.5	0.0
Camping	100.0	45.2	3.5	38.9	2.7	24.7	21.9	8.2	34.1	2.2	30.0	1.9	28.1	26.9	10.8
Boating, canoeing or waterskiing	100.0	59.9	24.3	34.2	1.5	27.3	10.8	2.0	56.4	24.0	30.7	1.6	33.1	9.5	0.9
Hunting or sport shooting	100.0	29.7	1.1	26.7	1.9	67.2	1.9	1.1	26.1	1.2	20.8	4.1	70.9	1.2	1.8
Horseback riding	100.0	11.1	6.5	3.3	1.3	56.5	32.1	0.3	2.7	1.2	1.2	0.2	73.6	23.7	0.1
Ice skating	100.0	49.3	42.9	6.4	0.0	29.9	19.5	1.3	46.5	37.4	9.2	0.0	32.5	19.4	1.5
Street hockey	100.0	37.5	37.5	0.0	0.0	59.4	2.0	1.0	44.5	44.5	0.0	0.0	54.5	0.8	0.2
Snow skiing	100.0	10.8	4.3	6.6	0.0	15.0	74.1	0.0	9.0	2.9	6.1	0.0	9.9	81.0	0.0

Recreation facility capacity limitations

For an estimated 13.9% of the activity days associated with the 17 activities for which kind of place information was obtained, the participant was inconvenienced or bothered by overcrowding. Five activities show a percentage of activity days associated with crowding which is greater than the percentage across all activities:

tennis	46.4%
snow skiing	35.3
ice skating	26.4
golf	19.2
swimming	14.2

The activities listed above are the activities most constrained currently by limitations in the capacity of recreation facilities.

Note that although participation in snow skiing, on the one hand, is highly constrained by limitations in capacity, only a very small fraction of all recreation activity days are devoted to snow skiing. Providing additional snow skiing facilities, therefore, could result in a large increase in snow skiing participation but could produce only a very small increase in total recreation activity. Swimming, on the other hand, accounts for more than 50 times as many activity days as does snow skiing. Thus, even though swimming participation is relatively less constrained by capacity limitations, providing additional swimming facilities could result in appreciable increases in total recreation activity.

To see which kinds of additional capacity could be expected to have the greatest impact on total recreation activity, it is necessary to weight the measures of capacity limitation as given above by the proportion of total recreation activity which is devoted to the particular activity. The results, given as percentages of activity days distributed among the 17 activities and adding to 100%, follow:

swimming	25.2%
tennis	23.5
basketball	8.5
picnicking	7.7
golf or miniature golf	7.6
ice skating	4.7
baseball or softball	4.6
fishing	4.0
camping	3.2
hiking or nature walks	2.8
boating, canoeing or waterskiing	2.5
football	2.3
hunting or sport shooting	1.5
snow skiing	1.1
horseback riding	0.6
street hockey	0.2
off-road motorcycling or snowmobiling	0.03

The foregoing percentages may be viewed as priority indicators among activities of the need for additional capacity. It should be noted, however, that the ranking does not take account of differences among activities in the cost of providing for additional activity days, nor does it take account of the differential accessibility of facilities.

Distance of place from home

For the 17 surveyed activities for which kind of place data were obtained, approximately three-quarters of activity days for recreation away from home are accounted for by places located within a half an hour from home.

TABLE 4

Away from Home Recreation Participation by Travel Time One-way, Most Recent Occasion, 17 Activities

(In percent)

Travel time one-way	Participants %	Participants Cum.	Activity days %	Activity days Cum.
Total	100.0		100.0	
Less than 5 minutes	7.8	7.8	13.8	13.8
5 minutes	11.8	19.6	17.5	31.3
6 to 14 minutes	13.7	33.3	15.2	46.5
15 minutes	9.9	43.2	10.4	56.9
16 to 29 minutes	10.3	53.5	10.0	66.9
30 minutes	10.5	64.0	7.9	74.8
31 to 59 minutes	6.3	70.3	4.8	79.6
1 hour	7.8	78.1	5.2	84.8
61 minutes to 1 hour 59 minutes	5.1	83.2	3.3	88.1
2 hours to 3 hours 59 minutes	10.2	93.4	7.0	95.1
4 hours to 7 hours 59 minutes	3.8	97.2	2.3	97.4
8 hours or longer	2.8	100.0	2.6	100.0

The effect of distance of facilities on recreation participation was investigated by asking respondents what would be the effect if the places where they participate away from home were located only half as far away as they actually are. Would the respondent participate much more often, slightly more often, or about as often as now? The proportion of activity days for an activity which are associated with "more often" responses gives a measure of the extent to which participation in the activity is constrained by distance of facilities.

For an estimated 16.7% of the activity days associated with the same 17 activities, participation was constrained by distance of facilities. Nine activities show a higher-than-average percentage of activity days suffering from distance constraints:

snow skiing	44.2%
boating, canoeing or waterskiing	36.3
camping	31.4
picnicking	27.6
fishing	27.1
ice skating	20.9
swimming	19.8
horseback riding	18.1
hiking or nature walks	18.0

The activities listed above are the activities which would be expected to experience a greater-than-average expansion in activity days as a result of reducing distance of facilities as distinct from adding capacity.

The percentages above indicate which activities would experience the greatest expansion as a result of reducing distance of facilities. To see for which activities reducing distance of facilities would have the greatest impact on total recreation activity, it is necessary to weight the percentages above by the proportion of total recreation activity which is devoted to the particular activity. Such weighting shows that the activities for which increased proximity of facilities would have the greatest impact on total recreation activity are, in order of decreasing relative importance: swimming, picnicking, hiking or nature walks, fishing, boating, canoeing, or waterskiing, and camping.

TABLE 5

Effect of Distance of Facility on Recreation Activity Days Per Capita, 17 Activities

Activity	Total days per capita	More than 15 minutes away from home	Would participate much more often	Would participate slightly more often	Total more often		
					Days per capita	In percent	Percent of total days per capita
All 17 activities. .	83.89	36.18	8.34	5.67	14.01	100.0	16.7
Swimming	20.72	8.78	2.61	1.50	4.11	29.3	19.8
Picnicking	6.13	4.64	0.98	0.71	1.69	12.1	27.6
Hiking or nature walks	7.44	3.77	0.73	0.61	1.34	9.6	18.0
Fishing	4.68	3.15	0.88	0.39	1.27	9.0	27.1
Boating, canoeing or waterskiing	2.58	2.00	0.60	0.34	0.94	6.7	36.3
Camping	2.86	2.59	0.55	0.34	0.90	6.4	31.4
Baseball or softball	7.84	1.84	0.29	0.42	0.71	5.1	9.0
Basketball	8.74	1.86	0.16	0.42	0.58	4.2	6.7
Golf or miniature golf	3.85	2.24	0.22	0.25	0.47	3.3	12.2
Ice skating	1.86	0.73	0.19	0.20	0.39	2.8	20.9
Tennis	5.10	1.11	0.23	0.13	0.36	2.6	7.1
Horseback riding	1.96	0.70	0.26	0.09	0.35	2.5	18.1
Hunting or sport shooting	2.23	1.16	0.22	0.13	0.35	2.5	15.7
Off-road motorcycling or snowmobiling	3.01	0.82	0.20	0.05	0.25	1.7	8.1
Snow skiing	0.36	0.27	0.11	0.05	0.16	1.1	44.2
Football	3.41	0.47	0.09	0.03	0.11	0.8	3.4
Street hockey	1.12	0.05	0.02	0.02	0.04	0.3	3.3

We have presented two priority lists showing which activities represent the largest components of constraint of total recreation activity resulting from limited availability of facilities. The list on page 9 is based on constraint due to over-crowding and the list in Table 5 is based on constraint due to excessive distance to facilities. Observe that swimming appears at the top of both lists, indicating that the highest priority should be given to expanding the availability of swimming facilities The only other activity which appears near the top of both lists is picnicking.

THE RECREATIONALLY DISADVANTAGED

There is strong evidence to suggest that certain subgroups of the population are deprived of access to recreation. Particularly disadvantaged subgroups are: individuals in noncar-owning households, individuals in low-income households, nonwhites, females, the elderly, and the handicapped. Moreover, persons living in high population density places are disadvantaged with respect to rural or wilderness type activities.

All of the above groups have considerably lower recreation participation rates compared to other groups in the population. Moreover, it is clear that the lower participation rates for the disadvantaged subgroups are not the result of a lack of interest in recreation or a diminished desire to participate. It should be noted that the survey results understate the degree of disadvantage since the most isolated and disadvantaged population segments are least likely to have a telephone. Also, the survey results presented do not show the effect of multiple disadvantages.

In what follows, comparisons of actual participation are made in terms of activity days per capita. Of course, low actual participation is not of itself evidence of deprivation. Deprivation is indicated, however, for groups with low actual participation who also have expressed a high level of interest in participation relative to actual participation. Thus, the extent to which recreation interests are unsatisfied may be measured by the number of interested nonparticipants as a percent of the number of current participants.

RECREATION ACTIVITY DAYS PER CAPITA, 19 ACTIVITIES, PENNSYLVANIA, CAR-OWNING AND NONCAR-OWNING HOUSEHOLDS, 1974

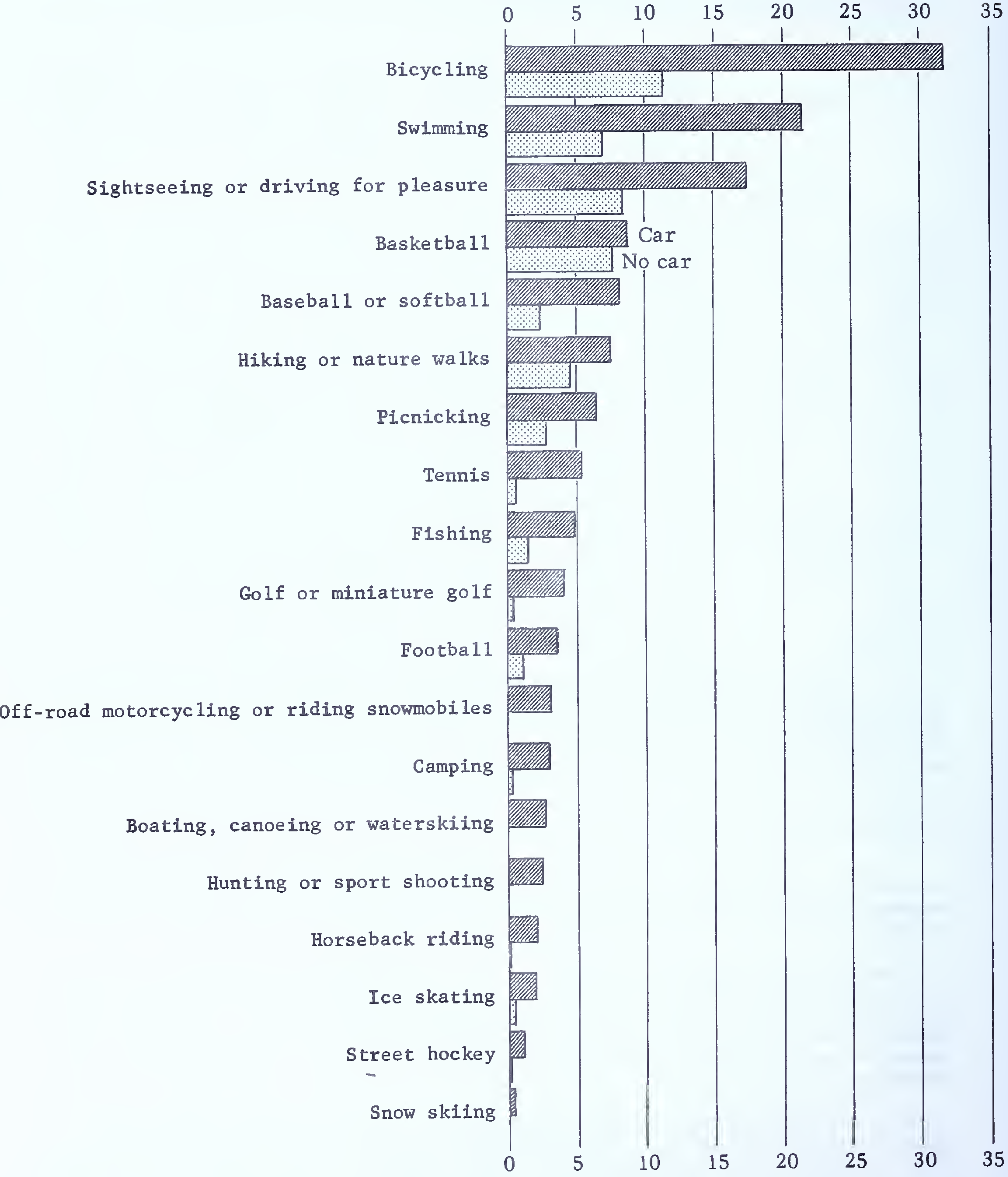


Chart 2

Individuals in noncar-owning households

Recreation participation is dramatically lower for individuals in noncar-owning households than it is for those in car-owning households. Across all 19 surveyed activities, the total annual participation of individuals in noncar-owning households is only 50.14 activity days per capita, compared to 136.64 activity days per capita for those in car-owning households.

TABLE 6

Activity Days Per Capita, 19 Activities, by Car Ownership in Household, Pennsylvania, 1974

	Population 5 and over	Own a car	No car
All activities	*131.29*	*136.64*	*50.14*
Bicycling	30.49	31.75	11.40
Swimming	20.72	21.63	7.04
Sightseeing or driving for plesaure	16.91	17.46	8.49
Basketball	8.74	8.81	7.72
Baseball or softball	7.84	8.19	2.50
Hiking or nature walks	7.44	7.62	4.74
Picnicking	6.13	6.35	2.84
Tennis	5.10	5.40	0.65
Fishing	4.68	4.89	1.52
Golf or miniature golf	3.85	4.08	0.45
Football	3.41	3.56	1.14
Off-road motorcycling or riding snowmobiles	3.01	3.20	0.08
Camping	2.86	3.03	0.29
Boating, canoeing or waterskiing	2.58	2.72	0.52
Hunting or sport shooting	2.23	2.37	0.01
Horseback riding	1.96	2.08	0.16
Ice skating	1.86	1.96	0.44
Street hockey	1.12	1.18	0.17
Snow skiing	0.36	0.38	0.00

Moreover, for each of the 19 surveyed activities considered separately, the participation for individuals in noncar-owning households is lower than it is for those in car-owning households. In four activities participation among individuals in noncar-owning households virtually disappears, namely: off-road motorcycling or riding snowmobiles, boating, canoeing or waterskiing, hunting or sport shooting, and snow skiing.

The lower participation rates of individuals in noncar-owning households are not the result of lack of interest in recreation. For each of the 19 surveyed activities, the level of unsatisfied recreation interest, as measured by the number of interested non-participants as a percent of the number of current participants, is considerably higher among individuals in noncar-owning households than among those in car-owning households. For example, for each individual in a noncar-owning household who participated in camping in the past year, there are another 2.5 who are interested in participating in camping. The corresponding figure for camping among individuals in car-owning households is only 0.5.

TABLE 7

Unsatisfied Recreation Interest, 19 Activities, by Car Ownership in Household, Pennsylvania, 1974

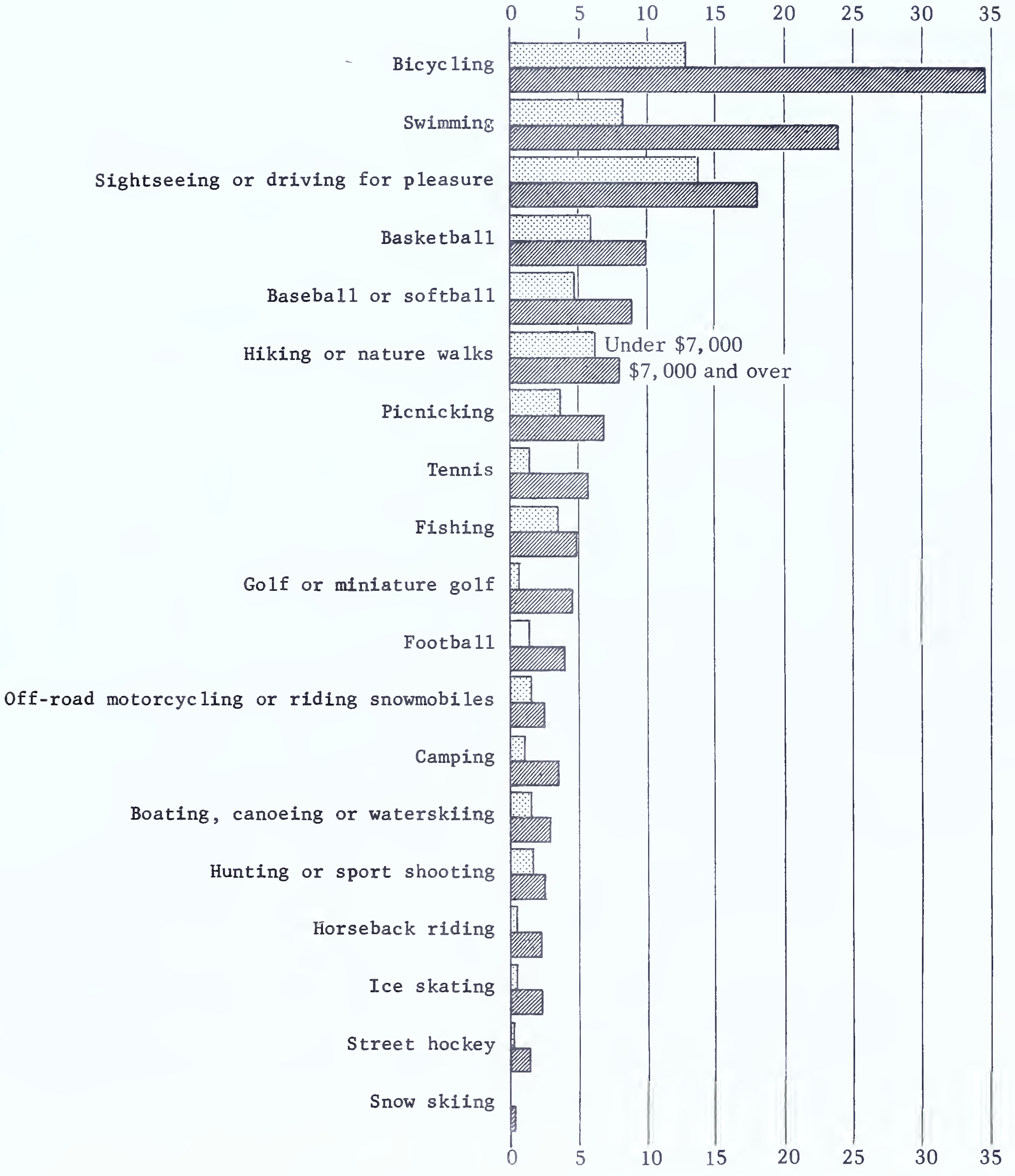
(Interested nonparticipants as a percent of current participants)

	Own a car	No car
Bicycling	13.3	36.0
Swimming	4.3	23.4
Sightseeing or driving for pleasure	2.9	17.9
Basketball	19.0	39.1
Baseball or softball	11.1	52.1
Hiking or nature walks	17.3	31.5
Picnicking	4.2	10.7
Tennis	46.3	186.4
Fishing	27.4	95.8
Golf or miniature golf	24.9	86.8
Football	18.4	60.6
Off-road motorcycling or riding snowmobiles	75.5	250.0
Camping	51.1	248.0
Boating, canoeing or waterskiing	42.7	106.0
Hunting or sport shooting	38.1	475.0
Horseback riding	143.8	200.0
Ice skating	40.2	118.8
Street hockey	34.2	400.0
Snow skiing	190.4	----

It is true, no doubt, that car-ownership effects are to some extent confounded with age and income effects. Noncar-owning households include a concentration of elderly and low-income individuals. However, the evidences of deprivation among individuals in noncar-owning households are more pronounced than they are for either elderly or low-income individuals considered separately, indicating that car-ownership itself is a major determinant of access to recreation.

In fact, in outing type activities the recreational deprivation of individuals in noncar-owning households is comparable to that of individuals having 1 or more of 8 specified disability conditions, namely: confined to a wheelchair, required to use braces, crutches or a walker, blind or nearly blind, deaf or nearly deaf, having a coordination disability such as palsy, having a heart or lung disability which limits activity, being emotionally disturbed, or mentally retarded. Both noncar-owners and handicapped persons each participated at least once in an average of 1.5 of the outing type activities in the previous year compared to 3.7 for all persons 5 and over. The activities included as outing type activities are: swimming, picnicking, boating, canoeing or waterskiing, fishing, hunting or sport shooting, hiking or nature walks, camping, off-road motorcycling or riding snowmobiles, sightseeing or driving for pleasure, and snow skiing.

RECREATION ACTIVITY DAYS PER CAPITA, 19 ACTIVITIES, PENNSYLVANIA, BY FAMILY INCOME, 1974



Chart

Individuals in low-income households

Recreation participation is considerably lower for individuals in low-income households than for those in higher-income households. Across all 19 surveyed activities, the total annual participation of individuals in households with total annual incomes under $7,000 is 68.68 activity days per capita, compared to 147.50 activity days per capita for those in households with-incomes of $7,000 or more.

TABLE 8

Activity Days Per Capita, 19 Activities, by Total Family Income, Pennsylvania, 1974

	Population 5 and over	Total family income	
		Under $7,000	$7,000 and over
All activities	*131.29*	*68.68*	*147.50*
Bicycling	30.49	12.84	34.71
Swimming	20.72	8.24	23.81
Sightseeing or driving for pleasure	16.91	13.68	17.99
Basketball	8.74	5.81	9.79
Baseball or softball	7.84	4.68	8.78
Hiking or nature walks	7.44	6.09	7.96
Picnicking	6.13	3.65	6.77
Tennis	5.10	1.54	5.74
Fishing	4.68	3.40	4.91
Golf or miniature golf	3.85	0.64	4.48
Football	3.41	1.40	3.99
Off-road motorcycling or riding snowmobiles	3.01	1.52	3.51
Camping	2.86	1.00	3.40
Boating, canoeing or waterskiing	2.58	1.39	2.98
Hunting or sport shooting	2.23	1.61	2.35
Horseback riding	1.96	0.41	2.30
Ice skating	1.86	0.48	2.25
Street hockey	1.12	0.18	1.35
Snow skiing	0.36	0.13	0.42

Moreover, for each of the 19 surveyed activities considered separately, the participation for individuals in low-income households (under $7,000) is lower than it is for those in higher-income households ($7,000 or more). $7,000 was chosen as the dividing point on the income scale because recreation participation in the $4,000 to $6,999 class is 41.9% below average participation, whereas participation in the $7,000 to $9,999 class is only 7.2% below average.

The levels of unsatisfied recreation interest, as measured by the number of interested nonparticipants as a percent of the number of current participants, are higher for 16 of the 19 surveyed activities for individuals in low-income households than they are for individuals in higher-income households. The 3 exceptions are picnicking, basketball, and hiking or nature walks.

TABLE 9

Unsatisfied Recreation Interest, 19 Activities, by Total Family Income, Pennsylvania, 1974

(Interested nonparticipants as a percent of current participants)

	Under $7,000	$7,000 and over
Bicycling	17.4	13.2
Swimming	11.2	4.1
Sightseeing or driving for pleasure	6.1	3.0
Basketball	16.5	19.1
Baseball or softball	14.5	11.0
Hiking or nature walks	16.9	17.2
Picnicking	4.3	4.3
Tennis	51.6	47.7
Fishing	45.9	27.8
Golf or miniature golf	62.8	24.1
Football	29.7	18.7
Off-road motorcycling or riding snowmobiles	96.6	73.5
Camping	66.0	51.7
Boating, canoeing or waterskiing	63.9	42.3
Hunting or sport shooting	42.3	37.7
Horseback riding	177.8	150.1
Ice skating	60.8	40.6
Street hockey	44.4	33.7
Snow skiing	243.8	194.9

Although individuals in low-income households appear to be deprived of access to recreation, their deprivation apparently is not so severe as it is for individuals in noncar owning households. In other words, lack of car-ownership appears to be a generally stronger determinant of access to recreation than is income.

RECREATION ACTIVITY DAYS PER CAPITA, 19 ACTIVITIES, PENNSYLVANIA, WHITE AND NONWHITE, 1974

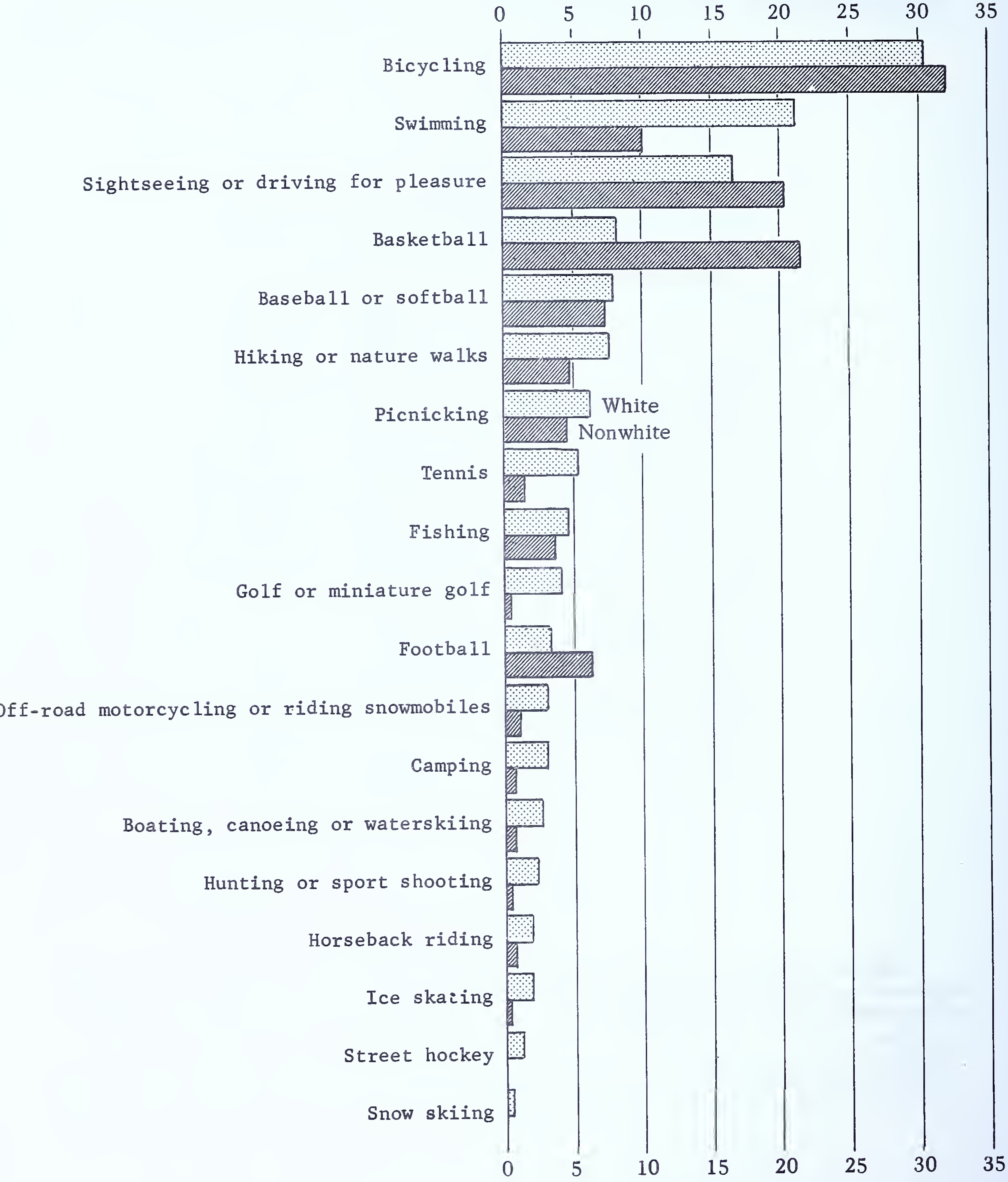


Chart 4

Nonwhites

Across all 19 surveyed activities, the total recreation participation of nonwhite individuals is 116.19 activity days per capita, compared to 132.11 activity days per capita for white individuals.

TABLE 10

Activity Days Per Capita, 19 Activities, by Race, Pennsylvania, 1974

	Population 5 and over	White	Non-white
All activities	*131.29*	*132.11*	*116.19*
Bicycling	30.49	30.39	32.14
Swimming	20.72	21.21	10.11
Sightseeing or driving for pleasure	16.91	16.75	20.28
Basketball	8.74	8.14	21.52
Baseball or softball	7.84	7.88	7.26
Hiking or nature walks	7.44	7.59	4.69
Picnicking	6.13	6.22	4.49
Tennis	5.10	5.30	1.39
Fishing	4.68	4.74	3.73
Golf or miniature golf	3.85	4.03	0.44
Football	3.41	3.28	6.21
Off-road motorcycling or riding snowmobiles	3.01	3.11	1.12
Camping	2.86	2.97	0.75
Boating, canoeing or waterskiing	2.58	2.67	0.70
Hunting or sport shooting	2.23	2.33	0.37
Horseback riding	1.96	2.02	0.71
Ice skating	1.86	1.93	0.30
Street hockey	1.12	1.18	0.00
Snow skiing	0.36	0.38	0.00

Moreover, for 15 of the 19 activities considered separately, participation by nonwhites is lower than by whites. The 4 exceptions are basketball, football, bicycling, and sightseeing or driving for pleasure, with basketball being the one activity for which participation by nonwhites is significantly greater than is participation by whites.

The participation rates for nonwhites are lower than for whites, but not overwhelmingly so. However, the participation rates do not tell the whole story.

The level of unsatisfied recreation interest (interested nonparticipants as a percent of current participants) among nonwhites is much higher for many of the activities than it is among whites.

TABLE 11

Unsatisfied Recreation Interest, 19 Activities, by Race, Pennsylvania, 1974

(Interested nonparticipants as a percent of current participants)

	White	Non-white
Bicycling	13.6	16.9
Swimming	4.5	8.3
Sightseeing or driving for pleasure	3.3	8.2
Basketball	19.8	13.8
Baseball or softball	11.6	17.6
Hiking or nature walks	17.5	24.6
Picnicking	4.5	3.4
Tennis	46.2	150.0
Fishing	27.1	86.3
Golf or miniature golf	25.0	82.1
Football	18.7	34.4
Off-road motorcycling or riding snowmobiles	74.0	261.5
Camping	50.1	311.1
Boating, canoeing or waterskiing	42.6	114.8
Hunting or sport shooting	38.9	118.2
Horseback riding	143.0	185.0
Ice skating	39.5	212.5
Street hockey	35.8	- - -
Snow skiing	190.8	- - -

Activities for which deprivation among nonwhites appears to be especially severe are: tennis, fishing, golf or miniature golf, off-road motorcycling or riding snowmobiles, camping, boating, canoeing or waterskiing, hunting or sport shooting, and ice skating. (No percentages are available for street hockey and snow skiing by nonwhites since no nonwhite participants in these activities were encountered in the survey.)

RECREATION ACTIVITY DAYS PER CAPITA, 19 ACTIVITIES, PENNSYLVANIA

BY SEX, 1974

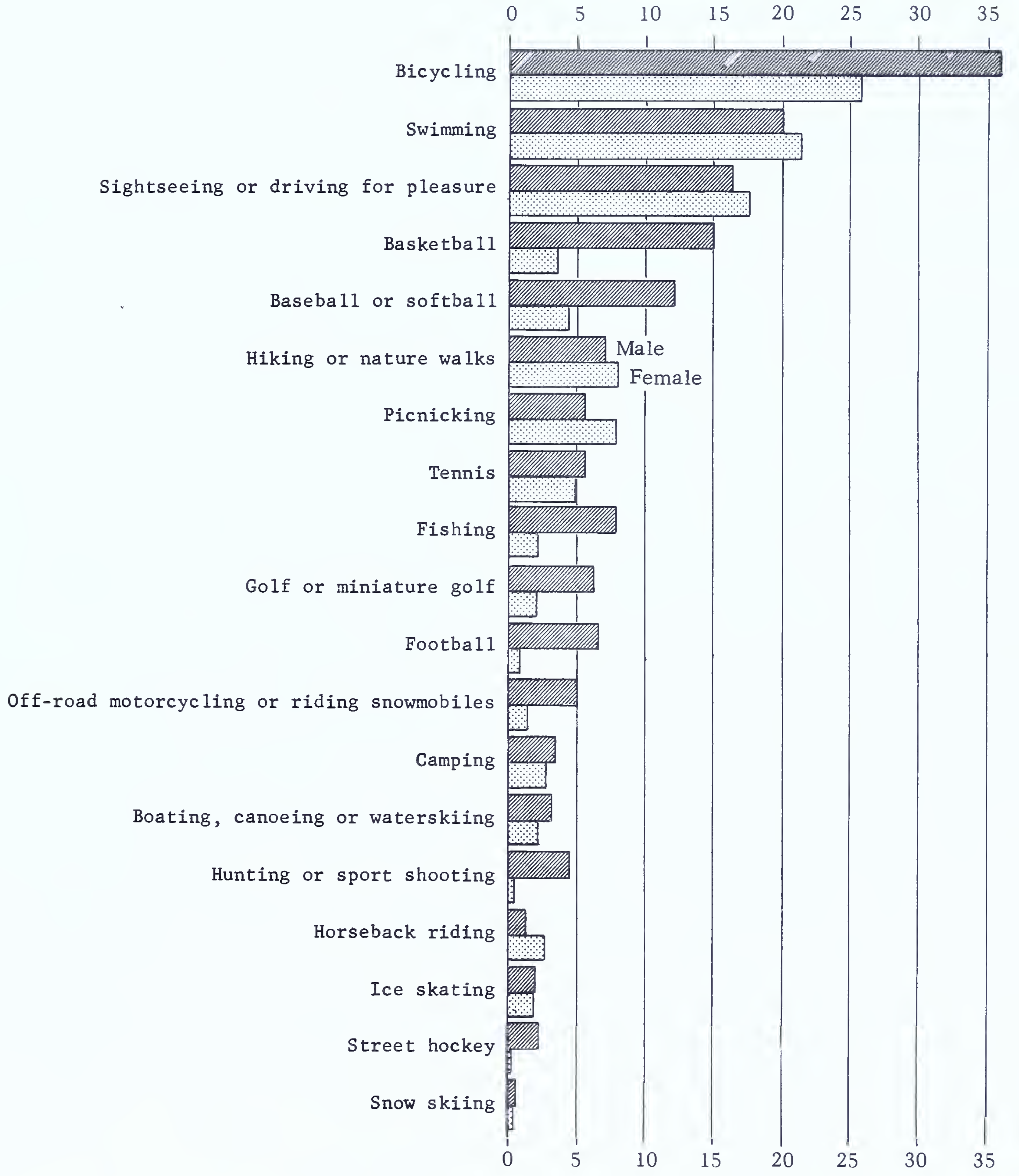


Chart 5

Females

Across all 19 surveyed activities, the total annual participation by females is 107.45 activity days per capita, compared to 158.59 activity days per capita by males.

TABLE 12

Activity Days Per Capita, 19 Activities, by Sex, Pennsylvania, 1974

	Population 5 and over	Male	Female
All activities	*131.29*	*158.59*	*107.45*
Bicycling	30.49	35.94	25.75
Swimming	20.72	20.02	21.35
Sightseeing or driving for pleasure	16.91	16.25	17.45
Basketball	8.74	14.91	3.36
Baseball or softball	7.84	12.00	4.20
Hiking or nature walks	7.44	6.96	7.87
Picnicking	6.13	5.50	6.69
Tennis	5.10	5.46	4.79
Fishing	4.68	7.74	2.01
Golf or miniature golf	3.85	5.96	2.01
Football	3.41	6.49	0.70
Off-road motorcycling or riding snowmobiles	3.01	4.91	1.35
Camping	2.86	3.18	2.57
Boating, canoeing or waterskiing	2.58	3.12	2.11
Hunting or sport shooting	2.23	4.44	0.30
Horseback riding	1.96	1.19	2.63
Ice skating	1.86	1.94	1.79
Street hockey	1.12	2.19	0.19
Snow skiing	0.36	0.40	0.32

The level of unsatisfied recreation interest (interested nonparticipants as a percent of current participants) among females is higher than for males in 16 of the 19 activities. The exceptions are swimming, horseback riding, and snow skiing.

TABLE 13

Unsatisfied Recreation Interest, 19 Activities, by Sex, Pennsylvania, 1974

(Interested nonparticipants as a percent of current participants)

	Male	Female
Bicycling	10.7	16.4
Swimming	5.0	4.3
Sightseeing or driving for pleasure	3.0	3.8
Basketball	14.0	30.5
Baseball or softball	8.3	17.2
Hiking or nature walks	17.5	17.7
Picnicking	4.4	4.5
Tennis	36.6	59.8
Fishing	21.0	42.2
Golf or miniature golf	20.0	33.1
Football	15.5	34.6
Off-road motorcycling or riding snowmobiles	71.6	83.2
Camping	52.7	53.4
Boating, canoeing or waterskiing	43.4	44.4
Hunting or sport shooting	28.7	123.7
Horseback riding	155.8	136.1
Ice skating	35.9	45.4
Street hockey	32.6	54.9
Snow skiing	218.0	173.2

It is interesting that the greatest difference between the level of unsatisfied recreation interest for females compared to males occurs for hunting or sport shooting.

RECREATION ACTIVITY DAYS PER CAPITA, 19 ACTIVITIES, PENNSYLVANIA AGE 45 - 64, AND 65 AND OVER, 1974

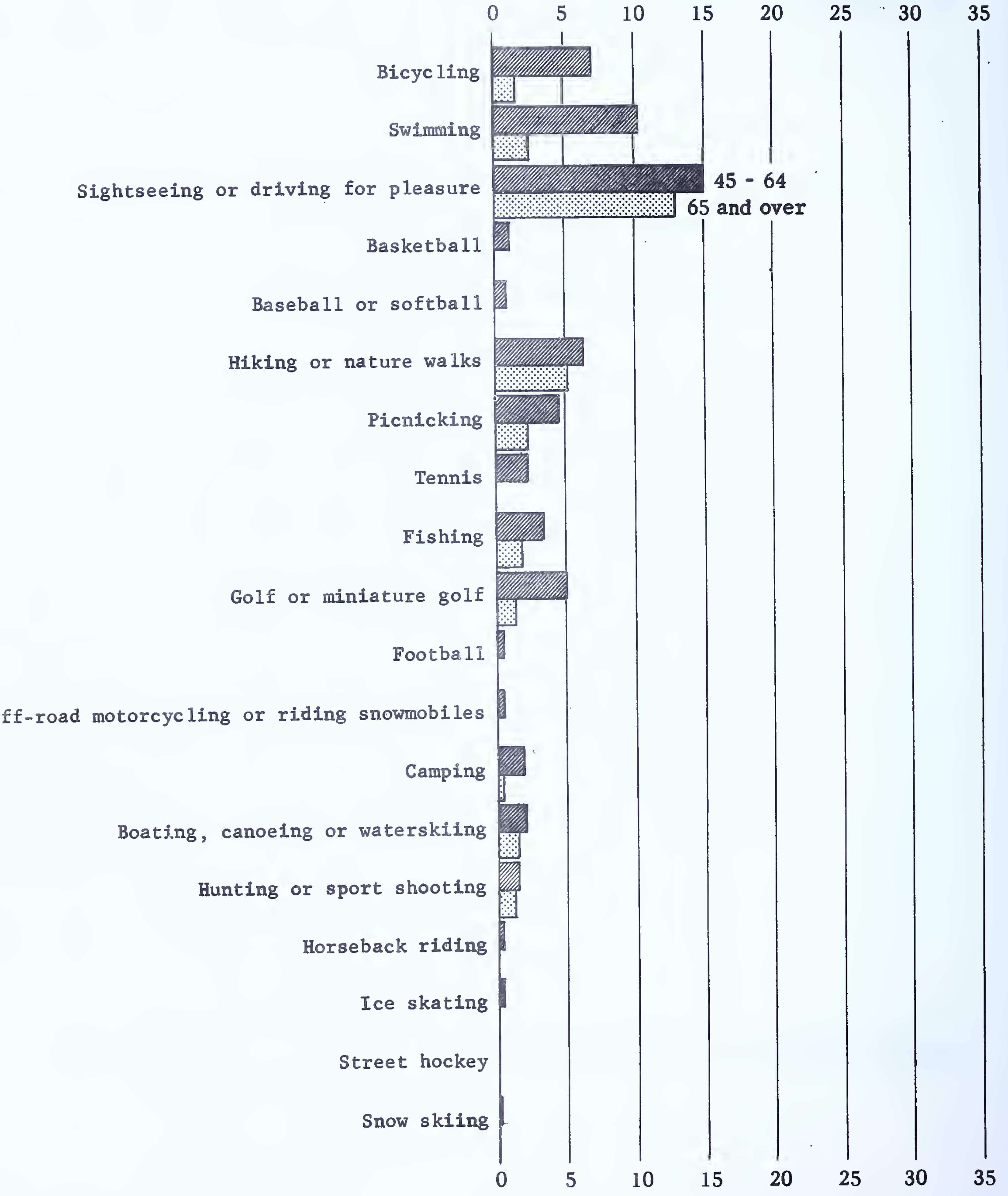


Chart 6

The elderly

For the 19 surveyed activities, there are strong relationships between recreation participation and age. For 5 activities, activity days peak in the 5 to 9 age category, namely bicycling, swimming, hiking or nature walks, picnicking, and horseback riding. Four activities peak in the 20 to 29 age group, namely sightseeing or driving for pleasure, tennis, boating, canoeing or waterskiing, and hunting or sport shooting. The only activity peaking in the 45 to 64 age bracket is golf or miniature golf. The remaining activities peak in the 10-19 age group.

Recreation participation in the 19 activities declines dramatically above age 64. For 9 activities participation virtually disappears. An activity list which adequately represents the recreation interests of the elderly should contain one or more activities which peak in the 65 and older age category.

TABLE 14

Activity Days Per Capita, 19 Activities, by Age, Pennsylvania, 1974

	Population 5 and over	5 - 9	10 - 19	20 - 29	30 - 44	45 - 64	65 plus
All activities	*131.29*	*215.15*	*258.87*	*149.20*	*100.95*	*63.04*	*31.17*
Bicycling	30.49	90.12	77.56	22.48	13.23	7.09	1.63
Swimming	20.72	39.84	35.87	21.97	20.18	10.40	2.36
Sightseeing or driving for pleasure	16.91	17.38	17.09	25.13	15.89	14.08	12.97
Basketball	8.74	7.35	27.27	11.20	3.89	1.12	0.00
Baseball or softball	7.84	15.13	23.20	6.50	4.25	0.85	0.04
Hiking or nature walks	7.44	10.36	7.84	8.41	7.65	6.43	5.17
Picnicking	6.13	9.10	6.11	8.05	7.41	4.63	2.28
Tennis	5.10	1.46	8.90	10.73	4.45	2.27	0.07
Fishing	4.68	3.53	7.15	5.82	4.92	3.44	1.88
Golf or miniature golf	3.85	1.00	3.83	4.22	4.40	5.14	1.36
Football	3.41	3.55	11.62	3.75	0.84	0.39	0.00
Off-road motorcycling or riding snowmobiles	3.01	1.75	8.13	4.63	1.96	0.58	0.08
Camping	2.86	2.95	4.96	3.12	3.17	1.84	0.38
Boating, canoeing or waterskiing	2.58	2.96	2.83	3.18	2.82	2.14	1.57
Hunting or sport shooting	2.23	0.12	3.09	3.42	2.58	1.60	1.29
Horseback riding	1.96	5.45	3.38	2.52	1.82	0.34	0.06
Ice skating	1.86	2.21	4.71	2.67	1.02	0.54	0.03
Street hockey	1.12	0.73	4.67	0.86	0.07	0.01	0.00
Snow skiing	0.36	0.16	0.68	0.54	0.43	0.16	0.00

Of the 19 activities surveyed for persons aged 65 or over, there is substantial unsatisfied interest in swimming and bicycling.

TABLE 15

Unsatisfied Recreation Interest, 19 Activities, by Age, Pennsylvania, 1974

(Interested nonparticipants as a percent of current participants)

	5 - 9	10 - 19	20 - 29	30 - 44	45 - 64	65 plus
Bicycling	3.4	2.9	21.3	22.7	27.4	64.3
Swimming	0.5	2.3	4.6	4.5	9.0	21.7
Sightseeing or driving for pleasure	2.5	5.0	3.4	3.0	2.6	5.2
Basketball	48.4	10.5	20.2	27.0	44.0	0.0
Baseball or softball	16.5	5.6	13.8	19.2	16.6	10.0
Hiking or nature walks	14.0	20.8	17.0	17.5	17.3	17.1
Picnicking	4.1	6.4	3.2	3.3	4.9	5.0
Tennis	84.5	34.4	39.0	73.8	58.1	27.3
Fishing	41.2	19.5	27.4	33.7	33.6	30.3
Golf or miniature golf	44.3	19.5	22.1	25.7	33.8	23.9
Football	39.7	11.2	19.2	37.9	39.0	0.0
Off-road motorcycling or riding snowmobiles	80.0	88.5	60.3	72.0	91.4	133.3*
Camping	54.1	47.8	64.7	49.7	55.8	47.1
Boating, canoeing or waterskiing	56.1	44.8	33.8	50.7	43.1	41.4
Hunting or sport shooting	300.0	57.2	28.0	30.4	30.0	23.9
Horseback riding	132.4	130.8	138.5	210.7	152.2	100.0*
Ice skating	76.9	19.9	47.0	63.0	45.6	0.0
Street hockey	64.6	21.4	76.9	200.0*	50.0*	0.0
Snow Skiing	286.2	148.5	200.9	294.8	110.3	0.0

*Not reliable because denominator of percent is close to zero.

The disabled or handicapped

Approximately 1 in 8 Pennsylvania households have one or more individuals with one or more of 8 specified disability conditions. Among the disabled individuals, approximately a half have heart or lung conditions and approximately a tenth are persons confined to a wheel chair.

In addition to the 19 outdoor-oriented activities in the original activity list, disabled respondents were questioned about 7 activities which are more sedentary or indoor-oriented, namely: bowling, visiting a museum or zoo, attending a movie, play or concert, attending a live sporting event, participating in a group for cards or other games, participating in a group for arts and crafts, and participating in a social or discussion group.

A supplementary survey was conducted to augment the sample of handicapped individuals. Even with the augmented sample, however, the data generally are subject to high sampling error because the percent of disabled individuals who participated is very low for many of the listed activities, and the percent of disabled individuals with a particular condition is low for some of the listed conditions. For example, only 3.7% of handicapped individuals surveyed were mentally retarded and of these only 4.5% (1 respondent) played tennis during the past year. For such activity/condition combinations, a difference of 1 or 2 respondents more or less would make a very great difference in the participation and unsatisfied recreation interest percentages, so the percentages for such cases should be taken as being at best suggestive qualitative indicators rather than quantitative measures. The reader having been cautioned, the data on at least-once-a-year participation and unsatisfied recreation interest are presented and compared with the corresponding data for the population 5 and over and the population 65 and over.

The at-least-once-a-year recreation participation of disabled or handicapped individuals exceeds that of individuals 65 and over in 17 of the 19 activities in the original activity list. The exceptions are sightseeing or driving for pleasure and hunting or sport shooting.

The unsatisfied recreation interest of disabled or handicapped persons exceeds that of the elderly in basketball, baseball or softball, tennis, fishing, golf or miniature golf, football, hunting or sport shooting and ice skating.

TABLE 16

Presence of Disabled or Handicapped Persons in Pennsylvania Households, 1974

Condition	**Households**	**Disabled individuals**	
		Percent	**Number in sample**
Total	**100.0%**		
No disability present	*87.9*		
Disability present	*12.1*	*100.0*	*594*
Confined to a wheel chair	1.0	9.1	54
Required to use braces, crutches or a walker	1.9	16.3	97
Blind or nearly blind	1.7	15.3	91
Deaf or nearly deaf	1.7	15.0	89
Coordination disability such as palsy	1.3	10.8	64
Heart or lung disability which limits activity	7.1	49.8	296
Emotionally disturbed*	0.4	4.0	24
Mentally retarded*	0.5	3.7	22

* Responses for emotionally disturbed and mentally retarded individuals were provided by a household head knowledgeable about their recreation activities.

TABLE 17

Any Time During Year Participation, Population 5 and Over, 65 and Over, and Individuals with Selected Disabilities, Pennsylvania, 1974

(Percent of Persons)

Activity	Total population		Any listed disability	Wheel chair	Braces crutch walker	Blind or nearly Blind	Deaf or nearly Deaf	Coordination disab.	Heart lung disab.	Emotionally disturb.	Mentally retarded
	5 and over	65 and over									
Average	*30.5*	*7.7*	*11.3*	*6.7*	*9.7*	*8.7*	*10.8*	*12.1*	*10.9*	*14.4*	*21.5*
Bicycling	47.9	3.1	9.8	0.0	5.2	6.6	6.7	12.5	10.1	25.0	22.7
Swimming	66.7	11.7	20.5	7.4	16.5	14.3	21.3	26.6	17.6	29.2	63.6
Sightseeing or driving for pleasure	72.5	51.1	41.6	33.3	50.5	36.3	40.4	37.5	43.6	29.2	50.0
Basketball	22.2	0.0	4.2	3.7	1.0	4.4	4.5	6.2	2.0	4.2	18.2
Baseball or softball	32.4	1.1	5.1	1.9	2.1	4.4	2.2	7.8	3.7	8.3	27.3
Hiking or nature walks	40.9	11.6	13.6	1.9	8.2	12.1	14.6	6.2	14.2	25.0	27.3
Picnicking	70.6	35.3	36.0	31.5	36.1	27.5	39.3	35.9	35.5	37.5	77.3
Tennis	24.0	1.2	2.2	0.0	2.1	2.2	0.0	1.6	2.7	4.2	4.5
Fishing	31.9	8.4	10.8	3.7	4.1	9.9	11.2	12.5	11.8	12.5	27.3
Golf or miniature golf	29.0	5.1	6.2	3.7	3.1	4.4	4.5	9.4	6.1	4.2	9.1
Football	16.5	0.0	1.9	1.9	0.0	2.2	3.4	3.1	1.0	0.0	4.5
Off-road motorcycling or riding snowmobiles	12.0	0.3	2.7	0.0	2.1	1.1	4.5	4.7	2.4	4.2	0.0
Camping	26.3	3.8	8.1	0.0	6.2	5.5	10.1	9.4	6.8	16.7	22.7
Boating, canoeing or waterskiing	30.7	7.8	9.3	1.9	8.2	8.8	7.9	6.2	10.9	12.5	18.2
Hunting of sport shooting	14.0	5.1	4.7	0.0	2.1	3.3	6.7	4.7	5.7	0.0	4.5
Horseback riding	11.1	0.7	2.5	0.0	3.1	3.3	1.1	1.6	1.7	8.3	0.0
Ice skating	21.2	0.2	2.9	0.0	3.1	3.3	2.2	0.0	2.4	8.3	4.5
Street hockey	4.6	0.0	0.8	0.0	2.1	0.0	0.0	0.0	0.3	4.2	9.1
Snow skiing	4.9	0.0	0.5	0.0	1.0	2.2	0.0	0.0	0.0	0.0	0.0
Bowling	na	na	7.9	3.7	6.2	11.0	11.2	10.9	4.1	8.3	31.8
Visiting museums or zoos	na	na	15.7	14.8	13.4	11.0	10.1	15.6	16.9	25.0	22.7
Movies, plays, concerts	na	na	28.8	20.4	23.7	13.2	25.8	34.4	29.1	41.7	54.5
Attend live sporting events	na	na	15.5	11.1	12.4	18.7	15.7	15.6	15.2	8.3	18.2
Groups for cards, games	na	na	19.7	22.2	19.6	9.9	19.1	25.0	17.9	25.0	18.2
Groups for arts and crafts	na	na	6.4	3.7	9.3	2.2	2.2	7.8	5.7	20.8	18.2
Social or discussion groups	na	na	13.6	7.4	10.3	9.9	15.7	10.9	15.5	12.5	4.5

na: Not asked in main survey.

TABLE 18

Unsatisfied Recreation Interest, Population 5 and Over, 65 and Over, and Individuals with Selected Disabilities, Pennsylvania, 1974

(Interested nonparticipants as a percent of current participants)

Activity	Total population 5 and over	Total population 65 and over	Any listed disability	Wheel chair	Braces crutch walker	Blind or nearly blind	Deaf or nearly deaf	Coor-dination disab.	Heart lung disab.	Emo-tionally disturb.	Mentally re-tarded
Average	*24.2*	*15.3*	*15.7*	*24.5*	*11.9*	*16.9*	*20.0*	*15.3*	*17.7*	*17.8*	*8.1*
Bicycling	13.7	64.3	12.1	0.0	40.0	0.0	16.7	0.0	16.7	16.7	0.0
Swimming	4.6	21.7	16.4	25.0	12.5	46.2	26.3	5.9	19.2	14.3	14.3
Sightseeing or driving for pleasure	3.5	5.2	3.6	0.0	2.0	6.1	2.8	12.5	3.9	14.3	0.0
Basketball	19.5	0.0	16.0	0.0	100.0	0.0	25.0	25.0	16.7	100.0	25.0
Baseball or softball	11.8	10.0	20.0	0.0	50.0	25.0	50.0	20.0	18.2	50.0	0.0
Hiking or nature walks	17.7	17.1	8.6	0.0	0.0	0.0	7.7	25.0	11.9	0.0	0.0
Picnicking	4.5	5.0	4.9	5.9	2.9	12.0	5.7	8.7	6.7	0.0	0.0
Tennis	47.8	27.3	92.3	- -	0.0	0.0	- -	100.0	87.5	200.0	100.0
Fishing	28.6	30.3	31.3	150.0	75.0	11.1	30.0	37.5	22.9	66.7	16.7
Golf or miniature golf	25.9	23.9	32.4	100.0	66.7	25.0	50.0	16.7	38.9	100.0	0.0
Football	19.4	0.0	36.4	0.0	0.0	50.0	0.0	0.0	33.3	0.0	100.0
Off-road motorcycling or riding snowmobiles	76.8	133.3	56.3	0.0	100.0	100.0	0.0	33.3	71.4	0.0	0.0
Camping	53.3	47.1	12.5	0.0	16.7	0.0	0.0	16.7	20.0	0.0	0.0
Boating,canoeing or water skiing	13.9	41.4	21.8	100.0	25.0	12.5	28.6	50.0	9.4	33.3	0.0
Hunting or sport shooting	39.6	23.9	35.7	- -	100.0	33.3	16.7	0.0	29.4	- -	0.0
Horseback riding	145.1	100.0	86.7	0.0	33.3	66.7	300.0	100.0	140.0	50.0	0.0
Ice skating	40.9	0.0	23.5	0.0	33.3	33.3	0.0	0.0	28.6	0.0	0.0
Street hockey	37.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Snow skiing	194.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bowling	na	na	36.2	0.0	0.0	20.0	40.0	28.6	75.0	50.0	28.6
Visiting museums or zoos	na	na	20.4	12.5	15.4	20.0	55.6	20.0	24.0	0.0	0.0
Movies, plays, concerts	na	na	9.9	18.2	4.3	33.3	17.4	13.6	10.5	0.0	0.0
Attend live sporting events	na	na	20.7	50.0	16.7	17.6	28.6	30.0	22.2	0.0	0.0
Groups for cards, games	na	na	8.5	0.0	0.0	11.1	5.9	12.5	17.0	0.0	0.0
Groups for arts and crafts	na	na	39.5	200.0	11.1	50.0	100.0	40.0	47.1	0.0	0.0
Social or discussion groups	na	na	8.6	25.0	0.0	11.1	21.4	0.0	8.7	0.0	0.0

Densely populated urban areas

Across all 19 activities the total activity days per capita in the areas with population densities of 6,000 or more persons per square mile is 125.43 compared to 136.26 for the medium density places with 1,000-5,999 persons per square mile and 130.88 for the low density places.

TABLE 19

Activity Days Per Capity, 19 Activities, by Population Density, Pennsylvania, 1974

		Population density		
	Population 5 and over	Low: under 1,000 per sq. mile	Medium: 1,000 - 5,999 per sq. mile	High: 6,000 or more per sq. mile
All activities	*131.29*	*130.88*	*136.26*	*125.43*
Bicycling	30.49	30.47	32.72	27.74
Swimming	20.72	19.36	21.08	20.98
Sightseeing or pleasure driving	16.91	16.64	17.27	16.61
Basketball	8.74	6.39	8.79	9.87
Baseball or softball	7.84	7.23	7.90	8.08
Hiking or nature walks	7.44	11.61	7.43	5.36
Picnicking	6.13	5.60	6.64	5.77
Tennis	5.10	4.41	4.67	6.00
Fishing	4.68	5.28	4.97	4.03
Golf or miniature golf	3.85	3.05	3.90	4.21
Football	3.41	2.14	3.56	3.86
Off-road motorcycling or riding snowmobiles	3.01	4.29	3.76	1.43
Camping	2.86	2.85	3.27	2.35
Boating, canoeing or waterskiing	2.58	2.57	2.55	2.62
Hunting or sport shooting	2.23	3.48	2.55	1.20
Horseback riding	1.96	2.56	2.10	1.48
Ice skating	1.86	2.01	2.10	1.49
Street hockey	1.12	0.50	0.60	2.08
Snow skiing	0.36	0.45	0.40	0.26

The high density places have participation at least 10% above the statewide average in basketball, tennis, football, and street hockey, and at least 10% below, in hiking or nature walks, fishing, off-road motorcycling or riding snowmobiles, camping, hunting or sport shooting, horseback riding, ice skating, and snow skiing.

Unsatisfied recreation interest is greatest in the urban areas for 13 of the 19 activities, namely: sightseeing or driving for pleasure, hiking or nature walks, picnicking, tennis, fishing, off-road motorcycling or riding snowmobiles, camping, boating, canoeing, or waterskiing, hunting or sport shooting, horseback riding, ice skating, street hockey, and snow skiing.

TABLE 20

Unsatisfied Recreation Interest, 19 Activities, by Population Density, Pennsylvania, 1974

(Interested nonparticipants as a percent of current participants)

	Low: under 1,000 per sq. mile	Medium: 1,000 - 5,999 per sq. mile	High: 6,000 or more per sq. mile
Bycling	11.8	14.6	13.7
Swimming	6.1	4.0	4.8
Sightseeing or driving for pleasure	2.4	3.6	3.8
Basketball	24.3	18.3	18.7
Baseball or softball	10.8	12.3	11.7
Hiking or nature walks	11.2	19.4	19.8
Picnicking	4.2	3.5	5.8
Tennis	45.7	46.7	50.3
Fishing	27.1	23.4	37.2
Golf or miniature golf	32.6	22.9	26.5
Football	25.4	14.1	23.2
Off-road motorcycling or riding snowmobiles	52.4	58.5	164.3
Camping	39.5	41.5	83.8
Boating, canoeing or waterskiing	37.5	40.8	51.6
Hunting or sport shooting	29.4	27.7	80.4
Horseback riding	100.0	130.3	202.0
Ice skating	35.2	40.2	45.5
Street hockey	13.6	36.9	44.1
Snow skiing	150.5	197.8	227.8

ACTION RECOMMENDATIONS

The current recreation survey was not designed to test or compare the effectiveness of specific action alternatives in recreation planning. Indeed, no action proposals were formulated either prior to questionnaire design or subsequent to the interviewing and prior to the computer tabulation runs. However, in the massive amounts of data obtained certain patterns and interrelationships have emerged, and it is clear that action proposals to be considered must satisfy the minimum requirement of being consistent with these patterns and interrelationships. The evaluation of specific action proposals would require further research of substantially different design.

In what follows, several action proposals will be recommended. The proposals are not necessary consequences of the data. Rather, they are _a_ set of plausible working hypotheses which are entirely consistent with the data. Certain of the recommendations result more from an intuitive understanding of the recreation picture than from the hard data itself. However, it is felt that the recommendations arise from an intuition which is extremely well informed as a result of sifting, studying, and analyzing was that a simple continuation of present approaches in recreation would not deal with the apparently highly intractable problems encountered. What follows is a view of recreation planning which represents _an_ attempt to deal with the problems. It is not our purpose to outline a total recreation program or recreation plan but rather to suggest three premises for more effective recreation planning and specific types of actions which are consistent with the three premises.

Premise 1: Groups and Information--Recreation Software. Traditionally, consideration of recreation resources has included only tangible physical facilities and resources: numbers of tennis courts, miles of hiking trails, acres of game land, etc. However, there are also nonphysical factors which have major impact on recreation participation. Among these are the organizational know-how of individuals and groups, the patterns of interaction and organization within the community, public knowledge of available facilities and available means of access to facilities, well-designed and well-maintained data bases, etc.--in short, groups and information.

Groups and information are a major recreation resource. They should be recognized as such and should be as consciously and deliberately developed as are any physical facilities and resources. As with any physical recreation resource, means should be developed to measure the groups and information resource and to monitor its growth.

A fruitful analogy exists between recreation resources and the resources of computer technology. In computer technology, resources consist of hardware--physical computing machinery and devices--and also software--programs, systems of organization, and information. Hardware alone, while valuable, is ineffective unless coupled with software which is the result of thoughtful and imaginative development. Neither hardware nor software is of much use by itself. In the past, recreation planning has largely ignored the necessity for recreation "software".

Premise 2: Underutilized Mass Transit. Underutilized mass transit facilities constitute a latent recreation resource which can be pressed into service with virtually no additional investment and which is most available when recreation demand is greatest. Moreover, use of mass transit facilities when they would otherwise stand idle would benefit the mass transit systems themselves.

The survey data show that individuals in noncar-owning households are manifestly deprived of access to recreation. The deprivation among such individuals (many of whom are low-income, elderly, nonwhite, and/or inner-city residents) is so severe that making mass transit available to them for recreation outings could be expected to have a substantial impact on overall recreation participation.

An effective program of mass transit for recreation would rely heavily on the use of groups as facilitators and organizers of recreation--according to Premise 1. Groups would enable economical, efficient use of vehicles and would provide supervision and control of individuals en-route and at the recreation site. Conversely, an effective program of mass transit for recreation would stimulate and support expansion of the role of groups in organizing and facilitating recreation activity.

An effective program of mass transit for recreation would also rely heavily on increased dissemination of information about available facilities and available means of access to facilities--see Premise 1. A successful campaign to increase public awareness of available recreation opportunities would increase the demand for group outings, thereby providing support for the usage of mass transit for recreation.

Premise 3: More Equal Access. The State should adopt an explicitly enunciated policy of working toward equal access to recreation among all segments of the citizenry. The State has long recognized the need for more equal access, and it should now move to implement what must become an explicit, consciously pursued policy.

First, data on recreation activity must be analyzed expressly for the purpose of detecting inequalities in access to recreation. The current survey has begun to make such analysis possible. Second, proposals for expanded recreation facilities and programs must be examined to determine their differential impact on different segments of the population. Planners should ask whether the proposed expansions will effectively reduce inequalities in access to recreation. The supply accessibility phase of the demand projections system points the way to a working model for such examination of proposals. Consideration of access deficiencies should also enter actively into shaping of the proposals themselves. Finally, the technical capability must be developed for ongoing statistical monitoring and evaluation of access to recreation.

A key to overcoming recreational deprivation on the part of disadvantaged segments of the population lies in stimulating and supporting expansion of the role of groups as facilitators and organizers or recreation. Groups enable outings at reduced cost. Groups provide the financial and organizational capacity to hire buses, reserve sites, advertise coming events, investigate available facilities, and so on. Groups make it possible for seriously disabled individuals to participate. Groups provide for supervision and control of individuals in transit and at the site. A person who might otherwise be reluctant to venture out to some remote site or to try a new activity would be encouraged by the security of being part of a group. Groups make it possible for people who live alone and have no means of transportation to participate. And many activities are simply more enjoyable when participated in with a group.

State recreation data base

The current survey, the associated facilities inventory, and the recreation demand projections which utilize both the survey and the facilities inventory will come to constitute a planning instrument of considerable power. They are a major data resource superior in current and potential effectiveness to the data resources possessed by other states or those which underlay prior Pennsylvania recreation plans. However, substantial expansion and refinement are needed. Even though current data resources are of far greater quality and scope of the demand side than on the supply side, it is on the demand side that the greatest need for expansion exists. The need for refinement and redesign is greatest on the supply side.

Demand side expansion should encompass several areas: increased scope and detail of activity lists, added attention to the needs of special population segments, and expanded consideration of activity-specific detail, particularly of the role of groups in recreation.

Increased scope and detail of activity lists is desirable for several reasons. First, a list of recreation activities is implicitly a set of recreation priorities. Activities excluded from a list tend to be excluded from consideration in recreation planning. Second, an activity list which is too short or is poorly chosen will necessarily exclude certain segments of the population from planning consideration. For example, the list of 19 activities chosen for the current survey, for the most part, does not include sedentary or indoor activities, and consequently the survey results do not provide adequate coverage of the recreation needs of the elderly and the handicapped. Third, activity lists should be augmented to include more activities which are participated in locally and are not automobile-dependent. In the past, recreation studies have tended to focus on outings and outing-type activities, with the result that outdoor games and sports of the kind that are participated in locally have been grossly underrepresented. The current survey has gone a long way toward correcting the outing-oriented bias, but there is still room for improvement. Activities such as park-sitting, walking for pleasure, and using playground equipment, for example, are also worthy of quantification.

Added attention to the needs of special population segments is required to enable planning which can effectively reduce the recreational deprivation of disadvantaged segments of the population. The current survey has served to detect and identify particular disadvantaged segments. Future studies should include components designed specifically for the purpose of investigating the nature and extent of recreational deprivation.

Expanded consideration of activity-specific detail is required particularly in connection with measuring and detailing the role of groups in facilitating and stimulating recreation participation. Efforts to obtain current measures of the effectiveness of groups and to monitor progress and growth in this area must be an integral part of any program which seeks to stimulate and support expansion of the role of groups in recreation.

In the past, activity lists and the detail obtained for each activity have been constrained by the requirement that interviews be kept at a reasonable length. However, it would be possible to use an expanded activity list and still keep a manageable interview length. One can rotate among sets of activities or sample randomly among individual activities so that each respondent would be questioned only on a subset of the activity list. A composite picture for the whole population can then be assembled by computer.

On the supply side, the facilities inventory needs to be substantially revamped and redesigned. Design of the questionnaire instrument to be used should be governed by considerations of clarity and ease of execution rather than ease of keypunching. Such considerations of questionnaire design are particularly crucial when the questionnaire forms are to be executed by persons other than professional interviewers.

More systematic collection of data relating to recreation operations is needed; for example, surveys of:

voluntary agencies, organizations and groups
park managers
concessionaires.

Such surveys should be specific to each universe.

Both on-site user surveys and local telephone surveys should be employed to a greater degree to aid in project planning.

As a general comment on recreation data and data systems there should be more emphasis on scientific surveying and sampling. Better designed questionnaires and information schedules and better research designs and sample designs are needed. Where resources are limited, samples can be limited in size. In general, censuses should be avoided, and resources put into better design and analysis. Catch-as-catch-can data collection may produce highly biased pictures.

The initial emphasis should be on obtaining a greater breadth and depth of information rather than on installing on-going, permanent data systems. Initially, updating should be done with special purpose surveys as needed. It may also be noted that the level of funding required will be substantially larger than that for the traditional state recreation plan.

Demand side actions

Following is a list of proposed demand side actions to stimulate recreation participation. The list is not intended to be either exhaustive or detailed, but rather to amplify and clarify by example the three premises stated above.

1. A program of recreation stamps for the elderly. The program could permit the stamps to be freely spent or it could require that they be redeemed only by approved or registered recreation facilitators, such as voluntary agencies, groups, or organizations. The latter approach would stimulate the development of group-facilitated recreation activity, which is a key to increased participation by recreationally deprived segments of the population.

   Among the elderly, recreation participation rates are greatly reduced, but the levels of unsatisfied recreation interest are lowered as well. It is felt that elderly persons have accommodated their recreation aspirations to the difficulties of their situation and the lack of recreation opportunities available to them.

   It is apparent from the survey data that several subgroups of the population are currently being deprived of access to recreation participation. For certain subgroups, such as individuals in noncar-owning households, the level of deprivation is considerably more severe than it is for the elderly. There are two reasons, however, for recommending that a stamp program be directed specifically to the elderly. First, since the elderly comprise a readily identifiable subgroup for which various kinds of public programs are already in existence, a stamp program for the elderly would be relatively more easy to organize and manage. Second, a program of recreation stamps for the elderly may be viewed as a natural extension of the current program which provides free use of mass transit facilities by the elderly during off-peak hours.

   The stamp program is seen as catalyst rather than fuel for expansion and equalization of recreation participation. Not only the elderly would benefit. Groups would be stimulated to develop programs and know-how which would then benefit other disadvantaged segments of the population, particularly the handicapped. The isolation of the elderly would be reduced and they would become valued and sought after. Since car ownership is low among the elderly, transportation arrangements would have to be made for them. Such arrangements would tend to stimulate the general use of mass transit in recreation.

It should be pointed out that while the idea of a program of recreation stamps for the elderly arises out of relationships observed in the survey data, the survey was not designed to directly evaluate the potential effectiveness of such a program.

2. Advertising, publicity, and information programs designed to:

   a. Publicize and promote the use of state parks and game lands.
   b. Help agencies, organizations, and groups design, organize, and manage recreational events and programs, both activity and program oriented; e.g., how to organize a bus sightseeing trip and picnic, or how to form a theater group designed to perform for the elderly.
   c. Stimulate and support inter-agency communication among:

      transit companies
      county and municipal recreation departments and park commissions
      city, county, and regional planning commissions
      voluntary agencies, community organizations and groups
      local newspapers
      school administrators and school boards.

   d. Support an expanded role for concessionaires and support the demand for their services, e.g., rental of bicycles and adult tricycles for the elderly and handicapped, camping gear, fishing equipment, horseback riding. Concessionaires might rent certain types of equipment to registered groups only, or have special rates to groups.
   e. Promote increased rental of equipment at the trip origin point through city recreation departments or commercial dealers. Here also, groups might get special privileges and rates.
   f. Support bus service to the interior of large recreation facilities.
   g. Support revised transportation and recreation policies and improved recreation data bases on the part of the Federal government and nearby state governments.
   h. Promote fuller use of school facilities, particularly indoors, by groups or organizations. Here also, a group certification process would increase the security of schools.

3. Special license and fee arrangements, e.g., for-the-day fishing licenses and discounts to groups traveling by bus or van, with reciprocal arrangements with bordering states.

4. Maintain a photographic file coded to road location which can be used to help in scenic tour and outing design and promotion, and equipment sales and rental. A computerized microfilm information system would be useful to transit companies, recreation directors, and groups. Trips could be "produced" with photographic exhibits which satisfy certain parameters, e.g., origin location, time and cost limitations, destination facilities required.

Supply side actions

The survey data file and the data file under development in connection with the demand projections provide a basis for evaluating the impact of alternative projects. For example, the effect on participation of one large facility at a single location could be compared with the effect of several smaller facilities at various locations. The principal recommendation here is to make use of this capability. Therefore relatively few specific supply recommendations are presented.

1. Support programs and projects which are designed to increase the accessibility and capacity for swimming and picnicking. This means a bias towards smaller facilities at more numerous locations.

2. The number of activity days under crowded conditions for tennis is nearly equal to that for swimming, so that an expansion in tennis capacity is indicated also.

3. More signing in support of sightseeing, at locations tied into the photographic file. Sightseeing is particularly important to the elderly.

4. Selective signing and interim shoulder paving in support of at-destination scenic recreational bicycling and tricycling.

5. Legislation to permit higher prices per acre to be paid and smaller sites to be purchased for development in or near metropolitan areas, which are relatively deprived of recreation facilities, according to an approved measure taking account of both recreational supply and accessibility.

APPENDIX: SAMPLE DESIGN

The Pennsylvania Recreation Survey was administered by telephone, and the sample was drawn from residential listings in telephone directories. As a result, only households with telephones and with listed telephone numbers were included in the sample, so that there is a bias against low and very high income households and against women living alone in metropolitan areas. The composition of the sample with respect to sex and age is reasonably close to the 1970 census distributions, as is shown in Table 21. The sample is also biased toward white and better-educated individuals and toward car-owning households.

The drawing of the sample began with the assembling of telephone directories for the entire State of Pennsylvania, more than 160 directories in all. In many cases telephone directories were duplicated under different covers with different yellow pages. Directories were examined initially to detect such duplications and eliminate duplicates where possible. After duplicates were weeded out, some 93 directories remained.

Estimates of the total number of listings were required for each directory. The estimates were obtained by systematically sampling columns of listings in each directory, counting the number of listings in each sample column, and multiplying by the number of columns per page and the number of whole pages to obtain the estimated number of listings per directory. A uniform sampling fraction of .0093758 was applied to each directory to obtain the number of listings to be selected initially from the directory.

Listings were selected in clusters. The size of cluster selected depended on the way in which the directory was organized. Some directories were organized alphabetically by the name of the telephone subscriber. In such directories, the listings were thoroughly mixed with respect to telephone exchange and geographical location, so that large clusters containing 50 listings each could be selected without distorting the geographical representation. Other directories, however, were organized by locality or telephone exchange. For such directories it was necessary to restrict cluster lengths to only 8 listings in order to insure better geographical representation. Still other directories, which were organized by groups of localities and had, therefore, some geographical stratification but not as much as exchange-organized directories, were allowed to have a compromise cluster length of 25 listings. A total of 2,181 clusters were selected.

TABLE 21

Population and Household Characteristics 1970 Census and 1974 Pennsylvania Recreation Survey

	1970 Census	1974 Pennsylvania Recreation Survey
Population 5 and over	*100.0*	*100.0*
Sex:		
Male	47.8	46.7
Female	52.2	53.3
Race:		
White	91.3	95.3
Nonwhite	8.7	4.7
Education, population 25 and over:		
Less than 9 years	29.1	13.0
9 - 11 years	20.6	15.9
12 years	34.5	45.9
Some college	7.0	12.1
College graduates	8.8	13.1
Age:		
5 to 9 years	10.0	7.9
10 to 14 years	10.8	9.7
15 to 19 years	10.0	9.9
20 to 24 years	7.7	8.5
25 to 29 years	6.5	7.3
30 to 34 years	5.6	6.2
35 to 44 years	12.6	14.6
45 to 54 years	13.9	14.2
55 to 64 years	11.2	11.3
65 to 74 years	7.3	7.5
75 years or older	4.4	2.9
Car ownership of households:		
Own car	80.1	93.7
Do not own car	19.9	6.3
Income of households:		
Less than $4,000	26.2	11.3
$4,000 to $6,999	17.2	14.2
$7,000 to $9,999	20.3	26.7
$10,000 to $14,999	22.1	25.6
$15,000 to $24,999	11.1	16.8
$25,000 and over	3.1	5.4

The number of listings to be selected from a directory was divided by the chosen cluster length for the directory to determine the number of clusters to be selected. A sampling interval within the directory was then determined and clusters were selected systematically. Clusters were examined to detect obviously nonresidential listings, which were eliminated.

The remaining residential listings were then keypunched onto punch cards along with their area code and directory number. In many cases, telephone exchanges appeared in more than one directory, even after duplicate directories had been eliminated. To prevent such exchanges from being overrepresented because they appeared in more than one directory, the punch card file was examined by computer. For each telephone exchange, the number of directories in which the exchange appeared was determined. If an exchange appeared in three directories, for example, then only every third listing in that exchange was taken. At the same time that exchanges were checked for duplications, listings themselves were checked for duplication and duplicates were eliminated. 38,336 telephone listings were input to the process. Of these, 264 listings were found to be duplicates and were eliminated. After selection of listings to compensate for duplicate exchanges, 29,468 sample listings remained. The total number of telephone exchanges actually appearing in the sample of completed interviews is 912.

The 29,468 sample listings were arranged in subsamples of 100 listings each in such a way that each subsample is representative of the State as a whole. It was not known at the outset what fraction of the 29,468 listings would be required to obtain the number of interviews needed. Through the device of dividing the sample into representative subsamples, however, it was possible to proceed through the subsamples and simply stop when the desired number of interviews had been obtained and still have a representative sample at any stopping point.

Since the sample was stratified by area code and exchange, the reduction in sampling error associated with the fine geographical stratification greatly outweighs the increase in sampling error attributable to clustering. Therefore, estimates of sampling error based on simple random sampling tend to overstate the sampling error.

The following formula, therefore, presents high side estimates of the sampling error of survey percentages:

$\bar{o}_{p'} = \sqrt{\frac{p(1-p)}{n-1}}$ where

$\bar{o}_{p'}$ = sampling error of a survey proportion

p = the survey proportion

n = the sample count on which the survey proportion is based.

TABLE 22

Sampling Errors (One Sigma) in Percentage Points

	Survey percentage					
Base of percentage	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
20	5.0	6.9	9.2	10.5	11.2	11.5
50	3.1	4.3	5.7	6.5	7.0	7.1
100	2.2	3.1	4.0	4.6	4.9	5.0
200	1.5	2.1	2.8	3.2	3.5	3.5
400	1.1	1.5	2.0	2.3	2.5	2.5
1,000	0.7	0.9	1.3	1.4	1.5	1.6
2,000	0.5	0.7	0.9	1.0	1.1	1.1
3,000	0.4	0.5	0.7	0.8	0.9	0.9

The above table is used as follows: select the row with the respondent count approximately equal to the base of the percentage; pick a column corresponding to the survey percentage. The figure in the cell corresponds to the one sigma error range above or below the percentage in the column head. The probability is approximately 68 in 100 that the true percentage will fall within plus or minus one sigma of the survey percentage, and 95 in 100, within two sigma.

Thus, for example, a survey proportion of 40% based upon a sample of 100 respondents may be expected to represent a true figure between 35.1% and 44.9% in 68 cases out of 100.

A minimum of 4 calls were made to each telephone number used before dropping it because of inability to make contact. In the process of counting the 4 calls, busy signals represented 1/3 of a call. In this way, a bias toward respondents who were at home and used their phones less was reduced. Having contacted a household, at least 3 additional calls were made, if necessary, to reach a specific individual designated for interview. Times and days of calls were noted so that interviewers could choose times to call back when they were most likely to be successful.

The household interview consisted of two parts, a recreation participation part and a household characteristics part. The individual in the household selected for interview with respect to recreation participation was selected at random from all household members 5 or more years old. For each telephone listing, interviewers were provided with a different set of random numbers which designated the individual to be interviewed for each possible household size. If the individual selected was incapable of being interviewed by virtue of deafness or some other condition, e.g., mentally retarded, an adult member of the household who was knowledgeable about the subject's recreation participation was allowed to speak for the subject. Moreover, if the subject of the interview was between the ages of 5 and 10, an adult was allowed to speak for the subject.

A head of household was interviewed for the household characteristics part of the household interview. Frequently, obtaining this information required that a household be contacted again to reach a head of household. Because of the length of the interview itself and because normally more than one person in the household would have to be contacted, the opportunity for refusal at some point along the line was increased. Refusals at all stages of the interview process constituted 32% of the total of completed interviews plus refusals.

SAMPLE QUESTIONNAIRE

Questionnaire No.________________-0____1-5(01)

HC **ID** **HD** **DQ** **R**

NE____________8

Interviewer________________________________

Telephone No. ____-____-____________AE9-12

Date Completed_____________________________

Sample No. __________ Line No. _____S13-15

OUTDOOR RECREATION SURVEY

INTRODUCTION: Good morning/afternoon/evening. My name is Ms./Mr.______________________________.

The Office of State Planning and Development is conducting a telephone survey across Pennsylvania that will be used by the State in planning for better public recreation facilities.

Are you a head of this household?

(IF YES – GO TO QUESTION 1.)

(IF NO) May I please speak with a head of the household?

(REREAD INTRODUCTION TO HEAD OF HOUSEHOLD. GO TO QUESTION 1. IF NO HEAD OF HOUSEHOLD IS AVAILABLE, ASK WHEN WOULD BE A GOOD TIME TO CALL BACK AND TERMINATE CALL).

1. Including yourself, how many members of this household now live at home?

1 2 3 4 5 6 7 8 9 10 or more -x 16

2. In order from the oldest to the youngest, please tell me the age and sex of each household member who is now living at home.

Age (Write In)	Office Use	Sex M	Sex F	Household head(s)	Subject of Interview	
______	________	1	2	H	1	
______	________	1	2	H	2	AH 17
______	________	1	2	H	3	AS 18
______	________	1	2	H	4	SS 19
______	________	1	2	H	5	
______	________	1	2	H	6	
______	________	1	2	H	7	
______	________	1	2	H	8	
______	________	1	2	H	9	
______	________	1	2	H	10	

Who is the principal head of this household? (INDICATE PRINCIPAL HEAD BY CIRCLING "H" CODE. INDICATE SECONDARY HEAD BY UNDERLINING "H" CODE.)

DETERMINE SUBJECT OF INTERVIEW USING SELECTOR NUMBERS IN SAMPLE LISTING, BASED ON THE NUMBER OF HOUSEHOLD MEMBERS 5 OR MORE YEARS OLD. CIRCLE SUBJECT'S NUMBER.

IF SUBJECT OF INTERVIEW IS 10 OR MORE YEARS OLD, ASK TO SPEAK TO SUBJECT. REREAD INTRODUCTION TO SUBJECT, GO TO QUESTION 3.

IF SUBJECT OF INTERVIEW IS NOT AT HOME, MAKE APPOINTMENT FOR CALL-BACK, AND TERMINATE CALL.

IF SUBJECT OF INTERVIEW IS LESS THAN 10 YEARS OLD OR IS UNABLE TO ANSWER FOR HIMSELF - - e.g., deaf, dumb, etc. - - CONTINUE INTERVIEW WITH A HEAD OF HOUSEHOLD.

READ: I would like to ask about the recreation activities of (SUBJECT).
What is (his/her) name?

GO TO QUESTION 3. READ QUESTIONS USING SUBJECT'S NAME.

Subject's name ______________________________

3. This past Saturday or Sunday did (you/subject's name):

(READ LIST, ONE AT A TIME - - CIRCLE CODE(S).)

-1 visit a museum or zoo,
-2 attend a cultural event or concert, or
-3 attend a live amateur or professional sporting event?

-0 NONE OF THESE. 20

4. I am going to read you a short list of recreation activities. Please think back to the most recent Sunday when you had good weather. Please tell me whether or not (you/subject's name) did any of these activities on that Sunday.

(READ LIST, ONE ACTIVITY AT A TIME:

"Did (you/subject's name) ACTIVITY ?")

(IF YES) Was that in Pennsylvania?

5. (MARK SUNDAY ACTIVITIES "YES" FOR Q5. FOR ACTIVITIES NOT MARKED "YES" ASK:)

Once again I am going to read you a short list of recreation activities. This time as I read them I would like you to think back over the past year, that is the period between now and this time last year. Please tell me whether or not (you/subject's name) ever did any of these activities during that time.

(READ LIST, ONE ACTIVITY AT A TIME:

"Did (you/subject's name) ACTIVITY ?")

6. Among the activities which (you/subject's name) did in the past year, are there any which (you/subject's name) had never done before the past year?

(IF YES) Which activities?

7. (READ FOR EACH ACTIVITY NOT MARKED "YES" FOR Q4, or 5.)

(Are you/do you think subject's name is) at all interested in (going/playing) ACTIVITY ?

(IF YES) What has prevented (you/subject's name) from ACTIVITY ?

8. Among the activities which (you/subject's name) did not do in the past year, are there any which (you/subject's name) definitely (plan/plans) to do in the coming year?

(IF YES) Which activities?

9. (READ FOR EACH ACTIVITY MARKED "YES" FOR Q4, or 5.)

On how many different days during the past year did (you/subject's name) ACTIVITY ?

(IF RESPONDENT DID ACTIVITY SO MANY TIMES HE HAS TROUBLE ESTIMATING:

You don't have to give me a number. For example, if (you/subject's name) went swimming every day of a two-week vacation, you can just tell me that. About _______ days then? Or does that sound too high or too low?

(Were you/Was subject's name) always in Pennsylvania when (you/subject's name) ACTIVITY ?

(IF NO) On how many different days did (you/subject's name) ACTIVITY in Penna.?

(FOR SWIMMING, TENNIS, BASKETBALL, AND ICE SKATING ONLY - -

Did (you/subject's name) ACTIVITY indoors at all? (IF YES) On how many different days did (you/subject's name) ACTIVITY indoors?

YrD ____________ 16-18 19 PaD ____________ 20-22 23 IndD ____________ 24-26 27

5,6
C02 Swimming
C03 Picnicking
C04 Boating
C05 Fishing
C06 Hunting
C07 Tennis
C08 Golf
C09 Basketball
C10 Baseball
C11 Football
C12 Street hockey
C13 Bicycling
C14 Horseback riding
C15 Hiking
C16 Camping
C17 Motorcycles or snowmobiles
C18 Sightseeing or driving for pleasure
C19 Snow skiing
C20 Ice skating

10. Now, please think about the most recent time (you/subject's name) ACTIVITY .

a. Was that in Pennsylvania? -1 Yes -0 No 28

b. Was that on a holiday weekend, regular weekend, or regular week day?

-1 Hol. WE -2 Reg. WE -3 Reg. WD 29

c. Was that on a vacation, overnight trip, all-day outing, or a time when (you/subject's name) had no more than a few hours available?

-1 Vacation -2 Overnight -3 All-day -4 Few hours 30

BICYCLING ONLY - - Did (you/subject's name) ride the bicycle from home?

-1 Yes (GO TO NEXT ACTIVITY) -0 No 31

SIGHTSEEING AND DRIVING FOR PLEASURE - - GO TO NEXT ACTIVITY

d. What kind of place was that? ______________________________ 32-35

BOATING ONLY - - Was that in a canoe or raft? -1 Yes -0 No 36

(IF NOT A PUBLIC FACILITY) Is there a public tax-supported facility in your area where (you/subject's name) can ACTIVITY ?

-1 Yes -0 No (SKIP TO e.) -2 DK (SKIP TO e.) 37

(IF YES) Why didn't (you/subject's name) go there?

______________________________ 38-39

(IF ACTIVITY WAS DONE IN RESPONDENT'S OWN BACKYARD, GO TO NEXT ACTIVITY.)

e. When (you/subject's name) ACTIVITY (were you/was subject's name) inconvenienced or bothered by over-crowding? -1 Yes -0 No 40

f. What means of transportation did (you/subject's name) use to get from home to the place where (you/subject's name) ACTIVITY ? ______________________________ 41

g. How long did it take to get from home to the place where (you/subject's name) ACTIVITY ?
______________ (IF 10 MIN. OR LESS, SKIP TO i.) 42

h. If the place where (you/subject's name) ACTIVITY were only half as far away as it actually is, (would you/do you think subject's name would) ACTIVITY

-1 Much more often -2 Slightly more often -3 About as often as now -4 (less) 43

i. Is there anyplace closer to home where (you/subject's name) could have ACTIVITY ?

-1 Yes -0 No (SKIP TO j.) -2 DK (SKIP TO j.) 44

(IF YES) What kind of place for ACTIVITY is closest to home?

______________________________ 45-48

How long does it take to get there? ______________ 49

Why didn't (you/subject's name) go there? ______________________ 50-51

j. (IF DIDN'T USE PUBLIC TRANSPORTATION IN f.)

Is there public transportation available to the place where (you/subject's name) ACTIVITY ?

-1 Yes -0 No -2 DK 52

(IF YES) What prevented (you/subject's name) from using it?

______________________________ 53-54

(IF NO or DK) If public transportation were made available, would (you/subject's name) use it?

-1 Yes -0 No 55

(IF YES) If public transportation were made available (would you/do you think subject's name would) ACTIVITY 56

-1 Much more often -2 Slightly more often -3 About as often as now
-4 (Less)

GO TO NEXT ACTIVITY OR BACK TO Q11 IN MAIN QUESTIONNAIRE

11. Are the outdoor recreational facilities at the public school nearest to your home available to the public after school-hours and during the summer?

-1 Available -2 Not available -3 Don't know

(IF AVAILABLE) (Do you/Does subject's name) use these facilities?

-4 Yes -5 No

(IF NOT AVAILABLE) If they were made available to the public (would you/do you think subject's name would) use these facilities?

-6 Yes -7 No 52

(REMAINDER OF INTERVIEW IS FOR A HEAD OF HOUSEHOLD. IF RESPONDENT IS NOT A HEAD OF HOUSEHOLD, ASK TO SPEAK TO A HEAD OF HOUSEHOLD. IF NEEDED, REREAD INTRODUCTION. IF NO HOUSEHOLD HEAD IS AVAILABLE, MAKE AN APPOINTMENT TO CALL BACK AND TERMINATE THE CALL.)

12. Recreation improvements can be in the form of improved physical facilities, expanded recreation programs, better equipment, increased supervision, and so on.

Thinking now about the public schoolyard nearest to your home, what specific changes or improvements would you like to see to make the schoolyard more suitable for recreation?

____

____ 53

____

____ 54

13. Now, for the nearest small neighborhood park that you know of, what specific changes or improvements would you like to see?

____

____ 55

____

____ 56

14. What specific changes or improvements would you like to see in the nearest larger county or municipal park that you know of?

____

____ 57

____

____ 58

15. What specific changes or improvements would you like to see in the nearest state park that you know of?

____

____ 59

____

____ 60

READ: Different kinds of families have different recreation needs. So that we can learn mone about how recreation needs differ, we would like to ask some questions about you and your family.

16. Do you or does anyone now living there have a car?

-1 Yes (SKIP TO Q17) - No

(IF NO) Do you have a camper or a truck that you use like a car?

-2 Yes -0 No (SKIP TO Q18) 61

17. (IF YES FROM Q16) As you know, there have been recent increases in gasoline prices. These increases may have affected your travel and recreation, in terms of how often and how far you drive. Do you use the (car/camper/truck) in connection with recreation

-1 much less, -2 slightly less, or -3 about the same 62
compared to before gasoline prices went up?

18. In total, how many full-sized 2-wheel bicycles are owned by members of your household who are now living there? __________ 63

(IF ONE OR MORE)

How many of these bicycles were acquired within the past 12 months? __________ 64

19. (ASK IN REFERENCE TO SUBJECT OF INTERVIEW.)

In (your/subject's) formal education, what is the highest grade or year (you have/ subject's name has) completed? __________ 65

20. (ASK IF SUBJECT OF INTERVIEW IS NOT THE PRINCIPAL HEAD OF HOUSEHOLD.)

In (his/her) formal education, what is the highest grade or year the principal head of the household has completed? __________ 66

21. (ASK IN REFERENCE TO SUBJECT OF INTERVIEW.)

(Are you/Is subject's name) presently employed?

(IF EMPLOYED) Is that full-time or part-time?

-1 Full-time -2 Part-time

(IF NOT EMPLOYED) (Are you/Is subject's name) out of work, retired, a student, or a housewife?

-3 Out of work -4 Retired -5 Student -6 Housewife -7 Disabled 67

22. (ASK IF SUBJECT OF INTERVIEW IS NOT PRINCIPAL HEAD OF HOUSEHOLD.)

Is the principal head of the household presently employed?

(IF EMPLOYED) Is that full-time or part-time?

-1 Full-time -2 Part-time

(IF NOT EMPLOYED) Is the principal head of the household out of work, retired, a student, or a housewife?

-3 Out of work -4 Retired -5 Student -6 Housewife -7 Disabled 68

23. In what county are you located? ______________________ 69-70

24. It is very important for us to find out how well public recreation programs serve families at different income levels.

Is your approximate total family income between $7,000 and $10,000, or is it higher or lower?

(LOWER) Is it higher or lower than $4,000?
(LOWER = Less than $4,000)
(HIGHER = $4,000 - $6,999)
(HIGHER) Is it higher or lower than $15,000?
(LOWER = $10,000 - 14,999)
(HIGHER) Is it higher or lower than $25,000?
(LOWER = $15,000 - 24,999)
(HIGHER = $25,000 and over)

CIRCLE CODE:
-0 Less than $4,000
-1 $4,000 - 6,999
-2 7,000 - 9,999
-3 10,000 - 14,999
-4 15,000 - 24,999
-5 25,000 and over
-6 Refused, not available 71

25. What is your race? -1 White -2 Black -3 Other 72

26. Many people have physical or health conditions which may affect their day-to-day activities. Have you, or has anyone living home with you, had any of the following conditions for at least a year?

a.	Is anyone confined to a wheelchair?	-1 Yes	- No
b.	Is anyone required to use braces, crutches, or a walker?	-2 Yes	- No
c.	Is anyone blind or nearly blind?	-3 Yes	- No
d.	Is anyone deaf or nearly deaf?	-4 Yes	- No
e.	Does anyone have a coordination disability such as palsy?	-5 Yes	- No

f.	Does anyone have a heart or lung disability which limits their activity?	-6 Yes	- No	
g.	Is anyone emotionally disturbed?	-7 Yes	- No	
h.	Is anyone mentally retarded?	-8 Yes	- No	73

(IF ALL RESPONSES ARE "NO", THE INTERVIEW IS FINISHED. THANK RESPONDENT AND TERMINATE CALL.)

27. (READ FOR EACH "YES" CONDITION IN Q26.)

What is the age and sex of the household member who CONDITION ?

Condition(s) (WRITE LETTER)	Age (WRITE IN)	Office Use	Sex M	Sex F
________	________	________	1	2
________	________	________	1	2
________	________	________	1	2
________	________	________	1	2
________	________	________	1	2
________	________	________	1	2

(ADMINISTER SERIES OF "DISABLED" QUESTIONS FOR EACH HOUSEHOLD MEMBER IDENTIFIED IN Q27 WHO IS 5 OR MORE YEARS OLD. IF MORE THAN ONE HOUSEHOLD MEMBER IS DISABLED, INTERVIEW FOR EACH OF THEM, ONE AT A TIME. IF DISABLED RESPONDENT IS LESS THAN 10 YEARS OLD OR IS UNABLE TO ANSWER FOR HIMSELF, A HEAD OF HOUSEHOLD MAY ANSWER FOR HIM.)

No. of activity sheets ________ 74-75

ANSWER SHEET FOR QUESTIONS 4 THRU 9

	Q4		Q5	Q6	Q7			Q8	Q9		
	C21 Sun. Yes	c22 Sun. Pa.	c23 Yr. Yes	c24 1st Yr.	c25 Int.	What prevented		c34 Plan	Yr. Days	Pa. Days	Indoor Days
Swimming	-2	-2	-2	-2	-2	26	Swimming	-2	C02		
Picnicking	-3	-3	-3	-3	-3	27	Picnicking	-3	C03		
Boating, canoeing, or Waterskiing	-4	-4	-4	-4	-4	28	Boating	-4	C04		
Fishing	-5	-5	-5	-5	-5	29	Fishing	-5	C05		
Hunting or sport-shooting	-6	-6	-6	-6	-6	30	Hunting	-6	C06		
Tennis	-7	-7	-7	-7	-7	31	Tennis	-7	C07		
Golf or miniature golf	-8	-8	-8	-8	-8	32	Golf	-8	C08		
Basketball	-9	-9	-9	-9	-9	33	Basketball	-9	C09		

	Q4		Q5	Q6	Q7			Q8	Q9		
	c35 Sun. Yes	c36 Sun. Pa.	c37 Yr. Yes	c38 1st Yr.	c39 Int.	What prevented		c51 Plan	Yr. Days	Pa. Days	Indoor Days
Baseball or softball	-0	-0	-0	-0	-0	40	Baseball	-0	C10		
Football	-1	-1	-1	-1	-1	41	Football	-1	C11		
Street hockey	-2	-2	-2	-2	-2	42	St. hockey	-2	C12		
Bicycling	-3	-3	-3	-3	-3	43	Bicycling	-3	C13		
Horseback riding	-4	-4	-4	-4	-4	44	Horseback	-4	C14		
Hiking or nature walks	-5	-5	-5	-5	-5	45	Hiking	-5	C15		
Camping	-6	-6	-6	-6	-6	46	Camping	-6	C16		
Off-road motorcycling (or riding snowmobiles)	-7	-7	-7	-7	-7	47	Motorcycling	-7	C17		
Sightseeing or driving for pleasure	-8	-8	-8	-8	-8	48	Sightseeing	-8	C18		
Snow skiing	-9	-9	-9	-9	-9	49	Skiing	-9	C19		
Ice Skating	-x	-x	-x	-x	-x	50	Skating	-x	C20		

OUTDOOR RECREATION SURVEY:
DISABILITY SUPPLEMENT
QUESTIONS FOR DISABLED PERSONS

Questionnaire No.____________________ 1-5(02)

Telephone No.____________________ AE9-12

Sample No.________ Line No.________ S13-15

CIRCLE CODE(S) FOR DISABILITY CONDITION(S)

-1	Confined to wheelchair
-2	Required to use braces, crutches, or a walker
-3	Blind or nearly blind
-4	Deaf or nearly deaf
-5	Coordination disability, such as palsy
-6	Heart or lung disability which limits activity
-7	Emotionally disturbed
-8	Mentally retarded

Interviewer____________________

Date Completed____________________

Subject's age: ____________ 16

Subject's sex: -1M -2F 17

C18

(IF RESPONDENT IS NOT SOMEONE YOU HAVE ALREADY BEEN INTERVIEWING, READ:

The Office of State Planning and Development is conducting a telephone survey across Pennsylvania that will be used by the State in planning for better recreation facilities.)

D1. We are particularly interested in the recreation needs of people with physical or other disabilities. I am going to read you a short list of recreation activities. As I read them I would like you to think back over the past year, that is the period between now and this time last year. Please tell me whether or not (you/subject's name) ever did any of these activities during that time.

(READ LIST, ONE ACTIVITY AT A TIME: "Did (you/subject's name) ACTIVITY ?")

D2. (READ FOR EACH "YES" ACTIVITY FROM D1.)

On how many different days during the past year did (you/subject's name) ACTIVITY ?

(Were you/Was subject's name) always in Pennsylvania when (you/subject's name) ACTIVITY ?

(IF NO) On how many days did (you/subject's name) ACTIVITY in Pa.?

D3. (READ FOR EACH "NO" ACTIVITY FROM D1.)

(Are you/Do you think subject's name is) at all interested in ACTIVITY ?

(IF YES) What has prevented (you/subject's name) from ACTIVITY ?

D4. (READ FOR EACH "YES" ACTIVITY FROM D1.)

a. Now, please think about the most recent time (you/subject's name) ACTIVITY . Did (you/subject's name) go alone, with family or friends, with a nurse or similar companion, or with an organized group, club, or team?

(IF AN ORGANIZED GROUP, CLUB, OR TEAM - - Was that a group especially for people with disabilities?)

b. The most recent time (you/subject's name) ACTIVITY was that at a public tax-supported or community-fund-supported facility?

(IF YES) At the place where (you/subject's name) ACITIVITY were there facilities or programs designed especially for people with disabilities?

D5. Many people with physical or other disabilities who would like to participate in recreation activities are prevented from doing so because of circumstances beyond their control.

a. Would you say that architectural or physical barriers are

-1 very important -2 important, or -3 not very important 19

in preventing (you/subject's name) from participating in recreation activities?

(IF NEEDED - - Physical barriers are things like rough trails, improperly designed rest rooms, and so on which act as barriers to many people with physical disabilities.)

b. What about difficulties associated with transportation?

Would you say they are

-1 Very important, -2 important, or -3 not very important 20

in preventing (you/subject's name) from participating in recreation activities?

c. What about the lack of special programs for people with disabilities?

Would you say they are

-1 very important, -2 important, or -3 not very important 21

in preventing (you/subject's name) from participating in recreation activities?

d. What about the fees and other costs associated with recreation activities?

Would you say they are

-1 very important -2 important, or -3 not very important 22

in preventing (you/subject's name) from participating in recreation activities?

e. What about attitudes and prejudices of non-disabled people towards people who do have disabilities?

Would you say they are

-1 very important -2 important, or -3 not very important 23

in preventing (you/subject's name) from participating in recreation activities?

D6. Generally speaking, when (you participate/subject's name participates) in recreation activities away from home, (do you prefer/do you think subject's name prefers) to be with other people who (are/have) CONDITION(S) or to be with the general public?

-1 with disabled -2 with public -3 no difference 24

D7. Do you know of any public tax-supported or community-fund-supported recreation facilities in your area with facilities or programs especially designed for people with disabilities?

(RECORD NAME OF EACH FACILITY, KIND OF PLACE - - COMMUNITY CENTER, STATE PARK, ETC. - - AND KIND OF SPECIAL FACILITY OR PROGRAM.)

____

____

____

D8. In (your/subject's) formal education, what is the highest grade or year (you have/subject has) completed? ________ 77

D9. (Are you/Is subject) presently employed?

(IF EMPLOYED) Is that full-time or part-time?

-1 Full-time -2 Part-time

(IF NOT EMPLOYED) (Are you/Is subject) out of work, retired, a student, or a housewife?

-3 Out of work -4 Retired -5 Student or preschool
-6 Housewife -7 Disabled 78

QD1 THRU QD4	c6-7 Card No.	QD1 c19 Yr. Yes	QD2 c20-22 Yr. Days	QD2 c24-26 Pa. Days	Int.	QD3 Card 02 What prevented		QD4a Alone	QD4a c28 Family/ Friend	QD4a Nurse	QD4a Group	QD4a Other (SPECIFY)	QD4a c29 Dis. Grp.	QD4b c30 Pub. Fac.	QD4b c31 For Dis.
Swimming	C28	-1	______	______	-	25-26 ______	Swimming	-1	-2	-3	-4	______	-1	-1	-1
Picnicking	C03	-1	______	______	-	27-28 ______	Picnicking	-1	-2	-3	-4	______	-1	-1	-1
Boating, canoeing, or waterskiing . . .	C04	-1	______	______	-	29-30 ______	Boating	-1	-2	-3	-4	______	-1	-1	-1
Fishing	C05	-1	______	______	-	31-32 ______	Fishing	-1	-2	-3	-4	______	-1	-1	-1
Hunting or sport-shooting	C06	-1	______	______	-	33-34 ______	Hunting	-1	-2	-3	-4	______	-1	-1	-1
Tennis	C07	-1	______	______	-	35-36 ______	Tennis	-1	-2	-3	-4	______	-1	-1	-1
Golf or minature golf	C08	-1	______	______	-	37-38 ______	Golf	-1	-2	-3	-4	______	-1	-1	-1
Basketball	C09	-1	______	______	-	39-40 ______	Basketball	-1	-2	-3	-4	______	-1	-1	-1
Baseball or softball . .	C10	-1	______	______	-	41-42 ______	Baseball	-1	-2	-3	-4	______	-1	-1	-1
Football	C11	-1	______	______	-	43-44 ______	Football	-1	-2	-3	-4	______	-1	-1	-1
Street hockey	C12	-1	______	______	-	45-46 ______	St. hockey	-1	-2	-3	-4	______	-1	-1	-1
Bicycling	C13	-1	______	______	-	47-48 ______	Bicycling	-1	-2	-3	-4	______	-1	-1	-1
Horseback riding . . .	C14	-1	______	______	-	49-50 ______	Horseback	-1	-2	-3	-4	______	-1	-1	-1
Hiking or nature walks	C15	-1	______	______	-	51-52 ______	Hiking	-1	-2	-3	-4	______	-1	-1	-1
Camping	C16	-1	______	______	-	53-54 ______	Camping	-1	-2	-3	-4	______	-1	-1	-1
Off-road motorcycling (or snowmobiles) . .	C17	-1	______	______	-	55-56 ______	Motorcyc.	-1	-2	-3	-4	______	-1	-1	-1
Sightseeing or driving for pleasure	C18	-1	______	______	-	57-58 ______	Sightseeing	-1	-2	-3	-4	______	-1	-1	-1
Snow skiing	C19	-1	______	______	-	59-60 ______	Skiing	-1	-2	-3	-4	______	-1	-1	-1
Ice Skating	C20	-1	______	______	-	61-62 ______	Skating	-1	-2	-3	-4	______	-1	-1	-1
*Bowling	C21	-1	______	______	-	63-64 ______	Bowling	-1	-2	-3	-4	______	-1	-1	-1
*Museum or zoo . . .	C22	-1	______	______	-	65-66 ______	Museum	-1	-2	-3	-4	______	-1	-1	-1
*Movie, play, or concert	C23	-1	______	______	-	67-68 ______	Movie, etc.	-1	-2	-3	-4	______	-1	-1	-1
*Live sporting event .	C24	-1	______	______	-	69-70 ______	Sports ev.	-1	-2	-3	-4	______	-1	-1	-1
*Group for cards or other games	C25	-1	______	______	-	71-72 ______	Cards grp.	-1	-2	-3	-4	______	-1	-1	-1
*Group for arts and crafts	C26	-1	______	______	-	73-74 ______	Crafts grp.	-1	-2	-3	-4	______	-1	-1	-1
*Social or discussion group	C27	-1	______	______	-	75-76 ______	Social grp.	-1	-2	-3	-4	______	-1	-1	-1

WERT
BOOKBINDING
Grantville, Pa.
Nov.—Dec. 1986
We're Quality Bound